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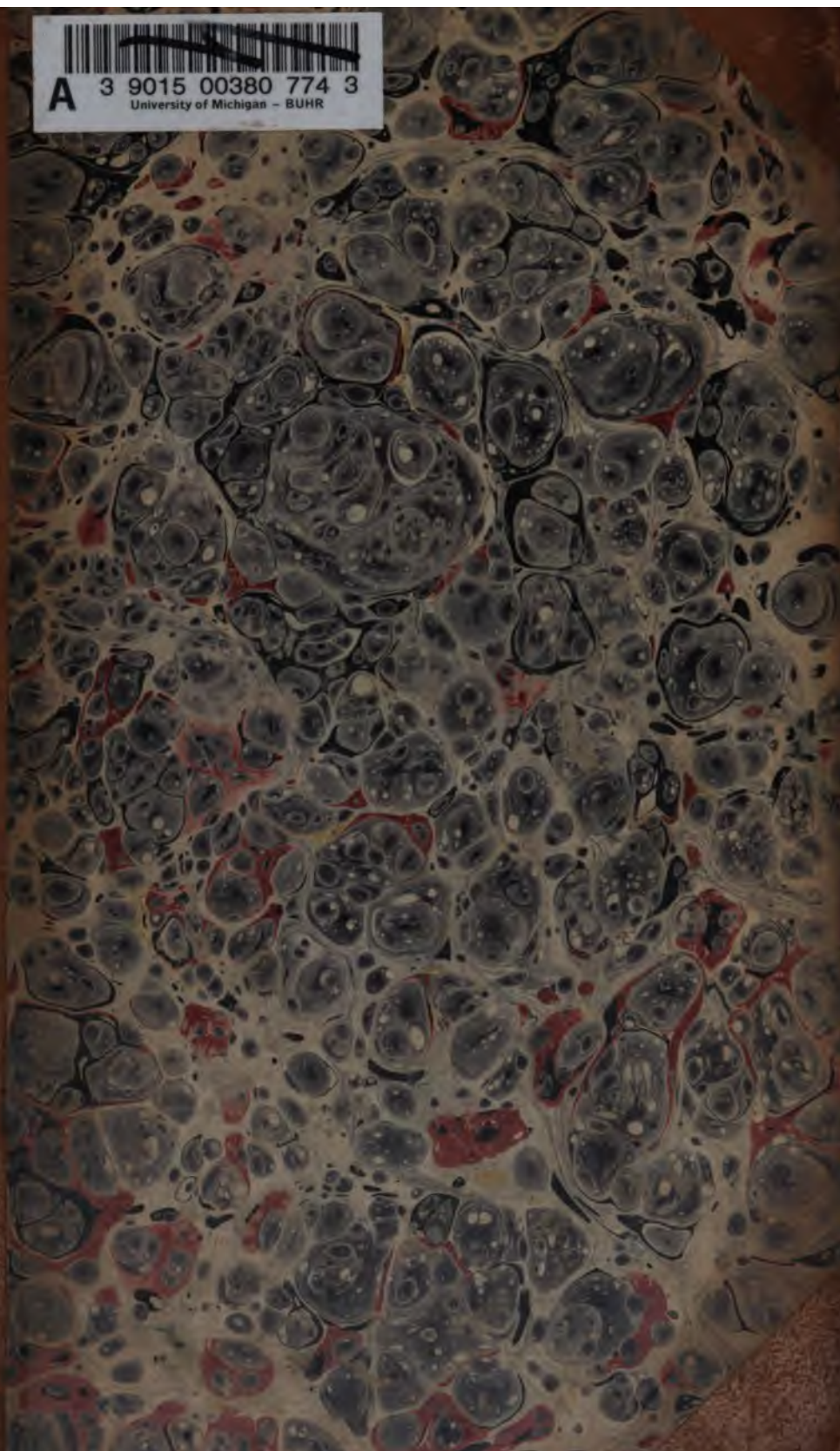
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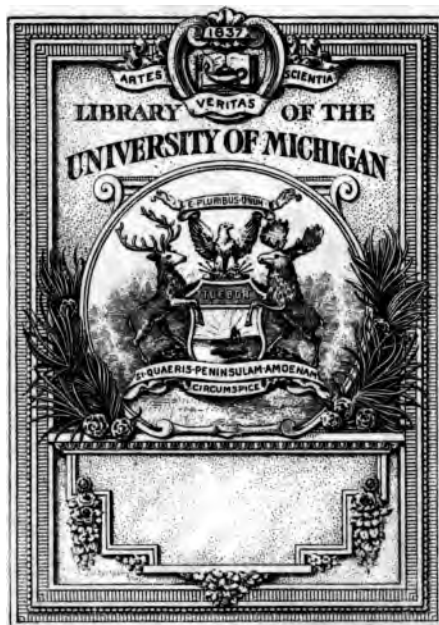
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2. The second part of the document describes the various methods used to collect and analyze data, including the use of statistical techniques and the importance of sample size and representativeness.

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8. The eighth part of the document describes the various methods used to analyze the data, including the use of statistical techniques and the importance of sample size and representativeness.

4. The fourth part of the document discusses the benefits of a well-implemented record-keeping system. It notes that accurate records can improve decision-making by providing a clear history of events and trends. Additionally, it can enhance compliance with regulatory requirements and facilitate the resolution of disputes. The document also mentions that good record-keeping can lead to increased efficiency and cost savings by reducing the time and effort required to locate and verify information.

5. The fifth part of the document provides a summary of the key points discussed and offers final recommendations for ensuring the success of the record-keeping initiative. It encourages a commitment to ongoing improvement and regular audits to ensure that the system remains effective and up-to-date. The document concludes by stating that while record-keeping may seem like a tedious task, it is a critical component of any successful organization and should be treated as a top priority.

THE
MEDICO-CHIRURGICAL
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&c. &c. &c.

"Nec tibi quid liceat sed quid fecisse decebit
"Occurrat mentemque domat respectus honesti."—CLAUD.

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INTELLIGENCE, CORRESPONDENCE, &c.**GIBRALTAR EPIDEMIC.**

We hardly regret to learn that we laboured under a mistake when we adverted to the inactivity of our own Government, and the Industry of that of France, in the investigation of the late Epidemic which ravaged Gibraltar. We have the best reason to believe that both the local Government of the Rock, and the general government at home, have taken as prompt measures as were compatible with existing circumstances to inquire into the causes, nature, and probable prevention of the Gibraltar Fever.

APOTHECARIES' HALL.

It gives us great satisfaction to be able to state publicly, what indeed we have been able to state privately for some time past, that the Court of Examiners, of the above-mentioned Company, do admit of Lectures attended by pupils during their apprenticeship, as proofs apparent of professional education—thus in fact, doing away with much of the inconvenience attendant on the apprenticeship Act. Mr. Wakley has seized on a misrepresentation (for misrepresentations are his only props) in order to give a little excitement to a stale story. But the day of medical calumny, like the “no popery,” cry, is past!

Literary Intelligence.

Dr. KENNEDY has, in a state of readiness for the press, a work which will form three volumes in 8vo. and be entitled, *A History of the Medical Sciences, Biographical and Philosophical, containing an account of the Persons and Writings that have conducted to the improvement of Physic, from its origin in BRITAIN to the End of the Eighteenth Century.* This Work naturally admits of a twofold arrangement—PART I. consists of more than One Thousand Articles, each of which, is subdivided into two sections; a *Biographical*, wherein the circumstances of its subject, both personal and professional, are concisely represented; and a *Philosophical*, which describes the most important Discoveries, Principles and Doctrines, propounded in the same Individual's Writings;—into these Sections, Disquisitive and Analytical Illustrations are occasionally introduced. PART II. includes an Alphabetical List of all Cases, Essays, and Books having relation to the Progress or Applications of Medical Knowledge; it also comprehends anonymous Treatises, Translations, and Papers contributed to Periodical Journals and the Transactions of Societies, by Writers, whose History could not be obtained. Each volume will be provided with a minute and copious Index, so as to make the Work a complete system of reference to the elements of our British Medical Literature and Philosophy.

In answer to MEDICUS and several other inquirers, we have to observe, that all *accepted* articles, in the *Review* department, are paid for at a reasonable rate; but we cannot foreclose. We prefer the articles being sent with a sealed name and motto.

N. B. An article (in the shape of a review) on TEMPERAMENT, and its influence on health, disease, and remedial treatment, is wanted. The author will have the option of being paid for the article in the usual manner, in which case, the name of the writer, must of course, remain concealed—or the successful candidate will be awarded a prize of a complete set of this Journal bound, in eleven volumes, and the name of the author will be published three months after the insertion of the article. The paper is to be sent with sealed name and motto, as above-mentioned.

THE
Medico-Chirurgical Review,

N^o. XXI.

APRIL 1, TO JULY 1, 1829.

I.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON DISEASES OF THE STOMACH, THE INTESTINAL CANAL, THE LIVER, AND OTHER VISCERA OF THE ABDOMEN. By *John Abercrombie*, M. D. Fellow of the Royal College of Physicians of Edinburgh, &c. and first Physician to His Majesty in Scotland. Octavo, pp. 396. 1828.

IN resuming our review of Dr. Abercrombie's Pathological Labours, affections of the Intestinal Canal are to occupy our attention; and, although the variety of topics embraced by our first article presented more novelty, the subject of the present is not less important. The diversity of functions allotted to the alimentary tube, and the necessity of their due and daily performance; their effects when disordered, upon the general health, and their influence when healthy upon the progress of disease, have given to this organ a character and a rank which entitle it to much attention. Before the observations of Dr. Hamilton upon Purgatives were made public, the distant sympathies and numerous connexions of the primæ viæ were understood but little, and valued less. Regarded chiefly as an *excretory duct*, their states and sympathies were carelessly observed, and unless they became troublesome through relaxation, or uneasy from confinement, spasm or inflammation was required to gain for them a proper share of the Physician's notice. But since the appearance of that work, medicine has sustained an important change, and diseases, which were ascribed to the nervous system as their seat, and pointed to nervous remedies as their cure, are now studied in connexion with intestinal derangement, and subjected to a course of purgative medicines.

That this therapeutic innovation has done good cannot be denied; that it is grounded upon principles more reasonable in themselves and better known to us is not to be disputed; and that the attention which we paid, or rather the negligence with which we attended to the important functions of an important organ was highly culpable, none are more ready to admit: but we have for some time suspected that we are now sinning on the other side, and that the anxiety, with which we now examine every stool, and look forward to every evacuation, resembles much more devotion to an idol than sensible and enlightened knowledge. In France, this *à posteriori* system is still more popular than with us, and no one can witness, without some feeling either of ridicule or contempt, the devotion which is paid to Cloacina in the schools of Broussais. In them it seems to be a point not yet decided, whether the physician was made for the night-table, or the night-table for

the physician; but sure it is, that, between mucous inflammation as the disease, and leeches and purgatives as its cure, his skill is mainly, if not wholly occupied. In this remark we restrict ourselves to the adherents of Broussais—the followers of Laennec, *perhaps* ride another hobby—and, whether the complaint be referred to the head or the toe, whether the ostensible symptoms be cerebral or thoracic, mucous action must explain all, and all must be treated by *fundamental* remedies.

It were unnecessary to observe that, like the stomach, the intestines are composed of three coats, did not their different textures and functions render them obnoxious to different forms of disease; but the symptoms of each are very much alike, and the treatment of all generally similar. From the peculiar situation of the mucous coat it is most frequently exposed to the causes of disease, and when diseased, is characterized by phenomena peculiar to itself, the most palpable of which are merely functional. It may, however, as we shall see hereafter, be very extensively disorganized without betraying *any* symptoms; and if we have any data pathognomonic of peritoneal and muscular inflammations of the fæcal tube, they are exceedingly equivocal, and require an extensive experience to render them available. Like inflammation of all other contiguous textures, the action of the one is easily transferable to the other, many of the signs of each are common to both, and a diagnosis between them must be more appreciated for nosological than practical purposes. It is, perhaps, true, as our author insists, that muscular fibre, when inflamed, often ends in gangrene, that serous texture frequently forms false membrane, and mucous tissue is disposed to end in ulceration; but it is also true that all of these terminations may be variously modified, and that each of these tissues may pass into any of these states. Thus, Dr. Pemberton observes that inflammation of the mucous coat *generally* ends by throwing out coagulable lymph, which may be discovered in the stools, resembling shreds of boiled macaroni; and it is daily seen in enteritis, dysentery, consumption and fever, that the muscular and peritoneal coats are by no means exempt, either from gangrene, or ulcerative disease. To decide, therefore, with precision upon the texture deranged, even by the nature of the post-mortem appearances, might frequently be hazardous, and if so in cases which have run their course, and in which our diagnosis is enlightened by seeing the effects of disease after death, is it not more strikingly certain in cases which are still in progress, and which furnish nothing in aid of our investigations but equivocal symptoms very imperfectly pronounced? We fear that the Dr. has on this point refined too much, when he observes that muscular inflammation is marked by obstructed bowels, and that an unaffected state of the intestinal functions characterises an inflammatory state of the peritoneal coat. Admitting with the Dr. that inflammation of the mucous coat is always marked by diarrhœa, in opposition to the authority of our best writers, our own experience, and the testimony of Broussais himself, we apprehend it will be generally allowed that peritonitis is nearly as often accompanied with constipation as enteritis, that the alvine functions may remain undisturbed in either, and that, if there be no diagnostic character between them better marked than obstruction during the disease and gangrene after death, it will prove a very fallible criterion.

“But, besides the various forms of inflammatory affections of the intestinal canal, there is a class of diseases entirely distinct, namely, that which affects it simply as a

muscular organ. This includes the various modifications of ileus, which, though it very often terminates by inflammation and its consequences, is in its early stages to be considered as a disease of the canal, affecting chiefly its muscular action. The investigation of the pathology of the intestinal canal might, therefore, divide itself into diseases affecting it as a muscular organ, including the varieties of ileus,—and the inflammatory diseases under three classes; namely, 1st, Simple Peritonitis, without any derangement of the muscular action of the bowels,—2d, Peritonitis combined with obstruction of the bowels, constituting the disease commonly called Enteritis,—3d, Inflammation of the mucous membrane.

"This is perhaps the correct pathological division of the subject, but I think it will answer the purposes of practical utility to consider peritonitis and enteritis together and the diseases of the mucous membrane separately. On this plan, the actual division of the subject will be,

"I. Ileus.

"II. The inflammatory affections of the more external parts, including peritonitis and enteritis.

"III. The diseases of the mucous membrane.

"The principal organic affections, and the various forms of chronic disease of the intestinal canal, are so connected with one or other of these classes, that the consideration of them must be very much combined." 103.

ILEUS.

Ileus, or, to use a more familiar and not less correct name, *Colic*, is marked by obstinate constipation, pain of bowels, especially severe around the umbilicus, which is rather relieved than increased by pressure, and vomiting. This last symptom is not necessarily nor always present, but the two former are; and if mal-treatment or neglect permit the disease to pass beyond the first stage, the abdomen generally gets tense and tender, the vomiting stercoraceous, and the patient either sinks exhausted from severe suffering, or is cut off by inflammation.

Our author divides this affection into three forms;—the *first*, he entitles *simple* ileus, or ileus occurring without any previous disease; the *second*, ileus arising from previous disease, but of such a nature as merely to derange the muscular power of the intestines; and the *third*, ileus with mechanical obstruction.

In *simple* ileus death may occur during various conditions of the affected structure. Thus, it may prove fatal while the intestine affected is only in a state of over distention, or this dilated state may be complicated with change of colour, or gangrene may have come on, and the gangrene may be combined with inflammatory exudation. But in whatever form of the disease life be extinguished, and however the closing scene may be modified by the multiplicity or inveteracy of its symptoms, distention seems to be the first *effect* of the disease, upon which the subsequent alterations in structure and aspect mainly, if not entirely depend. When spasm has once destroyed the tone of an organ, a very moderate excitement can induce more extensive disease; and when the coats of the intestines become excessively distended, their tonicity is either injured or destroyed, and a short continuance of the cause, which at first occasioned their enlargement, will be sufficient to run them into more matured disease. To illustrate the nature and progress of ileus from simple distention to complete gangrene of the gut, we shall give a rapid sketch of four cases, the first and second of which proved fatal from exhaustion, the third and fourth from inflammation and its consequences.

A woman, aged 20, having had her menses arrested by exposure to wet, was seized with violent pain in the upper part of her abdomen, attended with obstinate costiveness and frequent vomiting. On the 24th of June the pain was excessive, hiccup frequent, no stool, pulse 88, small, severe vomiting, belly tense and tender; on the 25th, no stool, every thing vomited, pain gone, pulse feeble; on the 26th, no stool, pain not returned, vomiting and hiccup continue; during the night she died.

Inspection. Lower part of ileum and colon contracted and of a white colour, but healthy to appearance; the rest of the small intestines were uniformly and greatly distended, so much so as to be transparent, and upon their surface appeared a few patches of vivid redness; a small abscess in the left ovary; other parts healthy.

A lady, aged 70, whose bowels had been confined for several days, was seized on the 4th of January with violent abdominal pain and vomiting; on the 6th, the pain was less, but vomiting continued severe, and bowels costive, pulse from 80 to 90, abdomen not tender under pressure; on the morning of the 7th, the symptoms were unchanged, but towards evening she began to sink, and died during night.

Inspection. Colon full of feces, but healthy; eighteen inches of lower end of ileum contracted and empty, the remaining part of small intestines very much distended and of a dull leaden colour, with occasional patches of a livid brown. That portion of gut next to the contracted part was darkest, being nearly black. Some disease of the serous surface of the aorta; other viscera healthy.

A boy, aged 12, was affected, on the 26th of October, with violent abdominal pain, particularly severe around the umbilicus, and urgent vomiting; bowels costive, abdomen tender, pulse 50. On the 27th, pulse 120, pain more severe, tension and tenderness greater. Bleeding reduced the pulse to 112, but no stool could be procured, the pain continued unabated, sinking commenced, and between seven and eight at night he died.

Inspection. Stomach healthy, small intestines distended and inflamed, right side of colon gangrenous, and its caput, having burst and discharged its contents into the peritoneal sac, was collapsed. The diseased portion had been evidently much distended before sphacelus came on, and, from having lost its contractility on that account, could not, after its rupture, resume the ordinary size. The rest of the colon was quite healthy.

A man, aged 19, was attacked, on the 17th, with violent pain around umbilicus, and incessant vomiting; abdomen hard, tense, and tumid; bowels costive, countenance anxious, pulse 84. He had been ill six days without experiencing any relief from medicine, and he was now treated with bleeding, blistering, purging, and other remedies, without effect. On the 18th, pulse 120, vomiting severe, but matter vomited not feculent. On the 19th, he was better; but, on the 20th, he became worse; and, on the 21st, he died.

Inspection. Stomach healthy, duodenum very greatly distended, in some parts transparent, in others gangrenous, bursting when handled, and in others black. This variety of condition extended to the middle of the small intestines, where a portion, 12 inches long, was empty, contracted, and healthy, below which the same diseased appearance returned, and extended till within three inches of the cæcum, where the ileum for that space

again became contracted. The gangrenous portions were glued together by extensive exudation, and the contracted portions were pervious, easily dilated, and seemed unchanged in structure. Colon healthy.

In the *second form of ileus* there is a complication of diseases, and its origin is, perhaps, more easily understood than that of the foregoing form. It is in fact, the supervention of a new upon an old disease, or the mere consequence of structural derangement. From some cause an adhesion forms within the abdomen between parts naturally free, and this adhesion counteracts or controls the functional actions of the adhering parts; or, it may be, only predisposes these parts to the agency of stimuli, which would have exerted no effect upon them under other circumstances. Ileus is thus induced, and, from the permanent nature of the cause, its symptoms are usually severe, and its issue too frequently fatal. The Dr. adduces several examples of this variety, but, since they are all essentially alike, differing only through the difference of the adherent parts, we consider it unnecessary to occupy our space by extracting more than one as an illustration; at the same time enunciating the catalogue of the rest. In the first case there is a small adhesion of the ileum to the parietes of the pelvis; in the second, the surfaces of the caput cæcum and ascending colon were attached for about two inches; in the third, the adherent intestine had formed part of a hernial tumour, to which the patient had been long addicted; in the fourth, two turns of intestine adhered by a narrow band of membrane, about an inch in length, in the sixth, ileus was occasioned by a ligamentous band, confining to the mouth of a hernial sac a portion of the colon; and the 5th case we shall now detail at large.

A man, aged 60, after being afflicted for a week with the ordinary symptoms of ileus, which had resisted every plan of treatment, became much exhausted by frequent attacks of vomiting. His belly was tympanitic, his pulse varied from 108 to 116, and although the distention of his abdomen had so increased as to equal that of a woman in the last stage of pregnancy, pressure could be borne without pain even to the last.

On *inspection* the stomach was found small and healthy, its region being principally occupied by the sigmoid flexure of the colon, which had been so distended as to *fill half the abdomen*. The upper end of the small intestines was healthy, but the lower portion was dark, and in some points gangrenous; the rectum was collapsed and healthy; some portions of the colon were not less than six inches in diameter, but for a more minute account of its sigmoid flexure, in which were the seat and source of the disease, we shall cite the original.

"The sigmoid flexure was found to have taken a singular turn upon itself, so that what is naturally its right side lay to the left, in contact with the descending colon; and the left or ascending portion of it passed in front of this portion, and lay on the right. In consequence of this transposition, the rectum, as it descended from the former, namely, what was now on the left side, passed behind the lower curve of the sigmoid flexure, where it takes the first turn from the descending colon; and the rectum itself at this part received a twist, as if half round. Exactly at the point where this twist had taken place, the distention and dark colour of the diseased intestine terminated abruptly, and the remainder of the gut became white and collapsed. At this point, however, there was no mechanical obstruction, for the part was quite pervious, and, excepting the slight twist, perfectly healthy.

"In this singular case, also, I had an opportunity of ascertaining the state of the part during life. For on the 25th, three days before the man's death, having exhausted all the usual means, I was induced to examine the rectum with a large ivory-headed probang; when I found, at a certain depth, which was afterwards seen to correspond with the point where the rectum was twisted, a very slight obstruction to the passage of the instrument, which however passed with very little difficulty, and was withdrawn without any. A piece of the intestine of an animal, tied at the end, was now carried up beyond this point, and filled, by forcibly injecting water into it. This was retained for some time in the distended state, and then slowly withdrawn; but no discharge followed, though, as I have already stated, the distended intestine contained only air and fluid feces." 116

The *third*, and last form of ileus arises from obstruction to the passage of the feces, not from spasm, or, as the Dr. would have it, paralysis of the intestines, as in the first variety; nor from mere derangement of their muscular power, as in the second; but either from such change of structure within the intestine itself, as contracts its calibre, or from such neighbouring disease as, by compression, or otherwise, counteracts its natural functions. This form of ileus is infinitely the most hopeless, being almost entirely beyond the resources of art, and the highest object at which, in its treatment, we can aim, is to blunt the sting of misery which we have not power to remove.

In the first case given by our author explanatory of this form, the lady had, 27 years before her death, suffered from strangulated hernia, which ended in an artificial anus in the right groin, that continued open for a considerable time, and then gradually closed. From this period she became addicted to attacks of abdominal pain and constipation, under one of which she sunk. On examination, the lower part of ileum was found in the hernial sac, and its coats both below and above this part were thickened, and had slightly contracted the area of the gut. The second, third, and fourth cases, depended on internal hernia, the strangulation having been variously effected; the five following arose from intussusception; a large gall-stone impacted in the upper part of the ileum caused the 10th; contraction of the calibre of the intestine was the origin of the 11th, 12th, 13th, and 14th; and the last arose from strictured colon. To enter into the particulars of each case is unnecessary, yet some are so peculiarly interesting, that to pass them over with so meagre a notice would be doing injustice both to our author and our readers.

A man, aged 28, was seized with the usual symptoms of ileus on the 16th, and died on the 18th. A man of glandular disease was found in the mesentery, to which several turns of intestine had contracted adhesions; the bore of the canal at each point of adhesion being slightly diminished. At one place a piece of intestine adhered by two different points, leaving between them a free space, into which a neighbouring portion of gut had entered and become strangulated. The canal immediately above this strictured part was gangrenous and distended.

A boy somewhat more than two years old, was attacked on the 7th with vomiting, pain in the lower belly and tenesmus, during which he passed some blood and bloody mucus. Pulse frequent, much restlessness, countenance anxious and depressed, but abdomen easy under pressure. On the 8th, while at stool, a bloody-looking tumour, the size of an egg, protruded

through the anus, which proved to be inverted intestine, and was easily reduced, but a probang was passed up by its side to a great height without reaching the commencement of the inversion; on the following morning the child died. On *inspection*, the intussuscepted parts were found to be portions of the ileum and colon, a corresponding part of the mesentery and some of the omentum; and the tumour, which appeared through the rectum, was the caput coli inverted. *Thirty-eight inches* were occupied by the inversion, and the included portion of the colon was of a livid colour, soft, and in some places thickened.

A man, aged 24, suffered an attack of cholera a year before his death, and became from that time liable to constipation and uneasiness in his bowels. When seen by the Dr. he was much wasted, had a small pulse, distended belly, occasional vomiting, and such constipation as often baffled the most energetic medicine. The arch of the colon was found upon *inspection* very much constricted about its centre. On the left side of the stricture a very small finger could be admitted into the opening; but on the right side there ran down across the middle of the aperture a flap of fibres, connecting the upper and lower surfaces of the mucous membrane, and leaving two small lateral openings. The colon to the left of this stricture was contracted into a cord not thicker than a finger, while that to the right was distended to upwards of twelve inches in circumference, and was impacted with feculent matter of good consistence.

The last case shall be given in the author's language :—

"A girl, aged 14, previously enjoying excellent health, was seized with symptoms of ileus on the second of April, 1828. She was treated in the most judicious manner by Dr. Ross, but without relief, and I saw her along with him on the 3d. The pulse was then rapid and feeble; countenance anxious and exhausted; abdomen distended, tympanitic, and tender; no stool except small discharges of white mucus; frequent vomiting. She died on the 6th.

"*Inspection*.—The whole tract of the small intestine was in the highest state of distention, and of a livid colour, with some exudation of false membrane. This state terminated abruptly at about ten inches from the lower extremity of the ileum, and the remainder of the ileum was of a healthy colour, but appeared unusually thick, firm, fleshy, and of a tortuous figure. The canal of the intestine, through this portion, was found to be narrow, tortuous, or folded, so as to be traced with difficulty. On farther examination it was discovered, that this singular mass was formed by numerous small turns of the intestine adhering to each other in a very firm manner; and the outer surface of the mass was so covered over by a new membrane, as to make its external appearance smooth and uniform. When this membrane was removed, and the adhesions were separated which was done with difficulty, the coats of the intestine appeared to be quite healthy. The disease was evidently of very old standing, but the patient had never been known to complain of any uneasiness in the bowels till the fatal attack." 128.

From the number and variety of the cases now extracted, the reader will perceive how diversified are the pathological phenomena of ileus, and in what a variety of stages of action fatal cases may occur! Thus, death may happen during simple distention of the affected gut; or life may continue until the disease have advanced another stage, and exhibit the incipient fruits of Inflammation; or inflammation may have been permitted to proceed to effusion of coagulable lymph; or the symptoms may continue till gangrene come on, and only terminate with the life of the intestine. In

the first instance the disease seems to the Dr. to be little more than *paralysis* of the muscular coat; in the second, paralysis is complicated with inflammation: and to the third and fourth are superadded inflammation and its effects. But all are merely grades of one and the same disease, and, however their remote causes may differ, the effects produced by these are very much the same. In reviewing the cases above detailed, it will be seen that distentions is the only uniform appearance which they present; but, whether this distention is to be considered as an effect or a cause, is, perhaps, a difficult but important question. The author's reasoning upon it is ingenious, and the evidence which he brings in favour of his views must be admitted to be strong where it fails to produce conviction. According to him the distended part is the seat of the disease, and the part which appears contracted is collapsed because empty; spasm is, therefore, wholly excluded, and his theory resolves itself into a mere loss of muscular action, or *paralysis*. But, lest we should misinterpret, or be misunderstood, we shall bring forward the language of the original on this point,

"It is probable, therefore, that there occurs in the state of ileus a certain loss of the muscular power in a portion of the canal, in consequence of which it does not act in concert with the other parts, but becomes distended by the impulse from the parts above, which in the healthy state would have excited it to contraction.

"In a fatal case of ileus, however, we generally find one part of the intestine in the state of distention here referred to, and another part empty and collapsed, presenting nearly the form of a cord; and there has been supposed to be a difficulty in determining which of these is the primary seat of disease,—some having contended that the collapsed part is contracted by spasm, and thus proves a source of obstruction, which leads to the distention of the parts above. The doctrine of spasm, as applied to this subject, must be admitted to be entirely gratuitous; and we must proceed upon facts, not upon hypothesis, if we would endeavour to throw any light upon this important pathological question. The following considerations seem to bear upon the inquiry :—

"1. The collapsed state of intestine, in which it assumes the form a cord, appears to be the natural state of healthy intestine when it is empty. We often see nearly the whole tract of the canal in this state in the bodies of infants, who have died of diseases not connected with the abdomen; but in whom the bowels have been kept in a very open state up to the period of death. We cannot doubt that a similar state of uniform contraction is the healthy condition of other muscular organs when they are empty, such as the bladder. We have then no sufficient ground for assuming that the state of uniform contraction of intestine is a state of disease; on the contrary, the facts favour the supposition of this being its healthy condition when it is entirely empty.

"2. On the other hand, we learn from various cases, particularly from the remarkable case, (Case L.) that a state of uniform distention, with lividity, may occur as a primary disease of the intestinal canal, without any appearance of obstruction, and without any part of it being in a contracted state.

"3. In a case of ileus, the collapsed parts are almost invariably found in a healthy condition at all periods of the disease; the morbid appearances, whether inflammation, lividity, exudation, or gangrene, being almost entirely confined to the distended parts.

"4. In Case XXXV. every obstruction below was entirely removed, while the parts above were, to external appearance, in a healthy state,—and yet the action was entirely suspended.

"5. In Case LI. the cause, which uniformly acted in so singular a manner, must be supposed to have acted upon a part only whose action was impaired, not upon one which was spasmodically contracted.

"6. In cases XXIX, XXX, and XXXI, we see the state of distention arising from causes entirely of a different nature, without the peculiar contraction here referred to; and on the other hand, in Cases XXXII, XXXIII, and XLIV. in which the disease was distinctly traced to a mechanical cause, this peculiar contraction, existed below the seat of the obstruction but could not be considered as having had any influence in producing the disease. In Case XXXIII, also it is to be remarked, that the contracted part was repeatedly and freely dilated during the course of the disease, without any effect in relieving the parts above.

"On these grounds, I submit the probability of the opinion, that, in a case of ileus, the distended part is the real seat of the disease; and that the contracted part is not contracted by spasm, but is merely collapsed, because it is empty, its muscular action being unimpaired." 136.

Now, although not disposed to travel to the same extent with the Dr. in his theory of ileus, nor prepared to criticise, *seriatim*, the arguments by which it is supported, we are ready to contribute our meed of approbation to its ingenuity, and unwilling to let it pass without some further notice.

That the distended intestine is generally in a diseased state is probable, and that this disease arises from want, or deficiency of muscular power, we believe;—that the contracted intestine may present no appreciable derangement is admitted, and that its diminished area may result from its being empty may occasionally be true: and, finally, that a distended condition of the fæcal tube *may* exist as a primary affection we consider proved by several of the facts and cases above recorded. But it must be equally certain, that ileus does arise from obstruction, and that distention may be the first effect of this obstruction. The cases of the impacted gall-stone and strictured colon will be regarded, we presume, sufficient vouchers for this point. Now, if obstruction to the passage of the fæces can and does occasion ileus, we would ask our author what evidence exists against the doctrine, that irregular muscular action, or, in other words, spasm, is never the cause of this obstruction? We are not aware that any of his cases or facts furnish such evidence, and we are certain that many of the causes and symptoms, and much of the treatment of this disease, are in favour of this view.

In the first place, attend to the nature of the causes;—they are generally such as are calculated to excite spasm, as cold applied to the surface of the body, acrid and poisonous matter received into the stomach and applied to the surface of the intestines, disordered bile, and unhealthy fæces. Secondly, examine the character of the symptoms; they are generally such as betoken the presence of spasm, as excruciating pain relieved by pressure, violent vomiting, tenesmus, and retraction of the muscles of the abdomen. The last symptom we should wish the Dr. to explain upon any other principle than spasm, and the first can be regarded as attending any disease rather than palsy. Thirdly, observe the remedies most effectual in relieving or removing the disease;—carminatives, opiates, tobacco enemata, cold affusion, and depletion. These are not such as would be first selected or most depended on in the cure of palsy, yet they constitute the sum and substance of our hope in ileus. In the fourth place, if a piece of distended intestine be the seat of ileus, and loss of muscular power be the cause of this distention, on what physiological or pathological principle will the Dr. account for this partial paralysis, and are the causes, symptoms, and progress of the disease, in appropriate keeping with its supposed nature? Is a sudden

exposure to cold, or an unexpected suppression of the menstrual discharge, or the presence of acrid matter in the alimentary canal, among the most active causes of paralysis? Or is violent pain, or incessant vomiting, or tenesmus, or spasm of the abdominal muscles, or relief from pressure over the abdomen, among the most pathognomonic signs of palsy? Or is death in the course of a few hours or days, while nothing can be seen upon dissection, but a few alternate patches of contracted and distended gut, without vascularity, inflammation, effusion, or gangrene, the ordinary result after such a period in palsy? In the fifth place, what symptomatic or pathological difference appears between those cases which did arise, according to the Dr.'s own showing, from mechanical obstruction, and those which are supposed by him to have originated in partial palsy? Let cases 36 and 37, which were occasioned by strangulation of a part of the fecal tube, be compared with cases 27 and 28, which are considered by the author as pure specimens of ileus from loss of muscular power; let their symptoms during life, and their appearances after death, be viewed in connexion, and then let the reader draw his own conclusion as to the *modus formandi* of the last two. During life we find violent pain of abdomen, urgent vomiting, and obstinate costiveness, the first, the last, and the leading symptoms of each; the treatment in all is alike, their duration very much the same, and the appearances of all upon inspection are inflammation and gangrene of the distended parts. And lastly, we are not disposed to admit that a healthy intestine in an adult, when empty, and simply because it is empty will always contract itself into an apparently solid cord; nor that a distended portion of intestine, and simply because it is distended, is always in a state of disease. Mere distention of the coats of an organ is insufficient to establish the presence of disease in these coats; in the absence of other less equivocal symptoms. Distention under such circumstances may be no more than excessive relaxation, and excessive relaxation is frequently an effort of nature to relieve disease, and not disease itself. Thus, spasm, or stricture of the urethra, may prevent the bladder from discharging its contents, and great distention of the organ is the consequence; but who will maintain that the bladder thus distended is in a diseased state? 'Tis true that this distention may occasion gangrene! but then the gangrene is a mere accident which depends upon the degree of this distention. So is it frequently, we imagine, in the case before us;—a portion of the intestinal tube becomes obstructed, an impediment is thus presented to the progress of the feces beyond the point of obstruction; but the peristaltic action from behind must occasion one of two results, either relaxation of the spasm, when the feces shall be allowed to pass on, or distention of the tube adjoining the spasm, to give room to the feces urged forward by the *vis a tergo*. The first result, we consider produced in those transient cases of colic which arise from sudden exposure to cold, are attended with severe pain, and last but a short time; the second result we regard as a secondary remedial effort following failure of the first, and except, perhaps, in a very few cases, not entitled to be called disease until overdistention destroy the organization of the parts, when inflammation, or other palpable consequences, will soon appear. Why is it that the distended part is always contiguous to the contracted portion? Is it not a too steady combination of circumstances to be explained by coincidence, that the distended and contracted parts should, in

every instance, be placed in juxta position? Since the distention is a primary affection depending on paralysis, and liable to occur in any portion of the tube, and since the contraction is a natural condition, depending merely on the absence of fæces, which may be present or absent in any portion of the tube at the period of attack, these two states are merely accidents, which bear to each other no etiological relation, and have for their origin no common cause; yet, wherever there is contraction there is dilatation, and the dilatation immediately adjoins the contraction!

Did space permit, this theory ought to be more extensively discussed, but the few strictures now made will, perhaps, be sufficient to encumber it with as much *dead weight*, as shall prevent it from floating free and unexamined along the current of public opinion; and as we wish, in every point of novelty and importance, to interest our readers as much as we feel ourselves interested, we shall not pursue this question further, but request them to take it up for themselves, convinced that whether they support or oppose the preceding train of argument, facts will be the only authority admitted in the investigation.

Before entering on the treatment of ileus our author very properly advises an examination of the abdomen, lest hernia be the source of disturbance; and, since a very small portion of strangulated intestine may give rise to a fatal attack of ileus, and this hernial state may escape even the suspicions of the patient, too minute attention cannot be paid to this point.

"In the medical management of cases which are referable to the general head of ileus, there are important distinctions to be kept in mind as to the state of the symptoms, which seem to require important diversities in the treatment.—It is impossible to delineate minutely all these distinctions, but there are certain leading varieties, which, in a practical point of view, may be briefly referred to. These are chiefly the following.

"1. Obstinate costiveness with distention of the abdomen, and considerable general uneasiness, but without tenderness, and without much acute suffering.

"2. The same symptoms, combined with fixed pain and tenderness, referred to a defined space on some part of the abdomen, frequently about the head of the colon.

"3. Violent attacks of tormina, occurring in paroxysms, like the strong impulse downwards from the action of a drastic purgative,—the action proceeding to a certain point,—there stopping and becoming inverted,—followed by vomiting,—the vomiting often feculent.

"These forms of disease will be recognized by the practical physician, as constituting affections distinct from each other. In a practical view, the importance of the distinction consists in pointing at two modifications of the disease which seem to lead to differences in treatment; namely, a state in which there is a deficient action of the canal,—and one in which there is a violent action limited to a certain part of it, though ineffectual for overcoming a derangement which exists below. The practical application of the distinction refers chiefly to the use of purgatives in ileus; and to the question, whether, in every case of ileus, the action of the canal requires to be excited by purgatives—or whether there are not modifications of the disease in which its action rather requires to be moderated. The adaptation of the remedies to the individual cases in fact demands the utmost discretion; and it is impossible to lay down any general rules for it. There are some cases which yield at first to a powerful purgative, and there are others in which any thing like an active purgative is highly and decidedly injurious. A large dose of calomel will frequently settle the stomach, and move the bowels; but, upon the whole, I think the best practice in general is the repetition, at short intervals, of moderate doses of mild medicine, such as aloes combined with hyosciamus. The peculiar and intricate character of the disease appears very remarkable.

bly from the fact, familiar to every practical man, that there are cases which yield to a full dose of opium, after the most active purgatives have been tried in vain. In regard to the use of purgatives, indeed, it may perhaps be said, that they form but a part of the treatment of ileus, and a part, too, which in some forms of the disease, requires to be used with the utmost discretion." 143.

The cautious phraseology of this extract encourages the hope, that the Dr.'s paralytic theory of ileus has not yet been enrolled among the sealed and settled articles of his creed. If this disease be so often paralytic in its nature, why should not purgatives be administered in the first stage before inflammation have come on?—They are stimulating, the disease requires stimuli, their stimulus is applied to the very part requiring it, and, in place of suspecting their adaptation, or questioning their efficacy, they should be faithfully and freely given. The truth is, that spasm, or inordinate action is in many instances the morbid cause; to administer severe purgatives would increase this action, and to increase this action would aggravate the symptoms; therefore, as the Dr., not very consistently, yet judiciously observes, "The best practice in general is the repetition, at short intervals, of moderate doses of mild medicine, such as aloes combined with hyoscinus." This is the very language of Hoffman and Cullen, and when the advocates of schools, so differently organized, agree in their practical directions; the theories advanced by either are of less importance. Speranza, who thought ileus depended on inflammation, recommends the lancet as the leading remedy; and, although proselytes to another faith, we attach much importance to judicious depletion. Violent and neglected spasm will soon pass into inflammation, and it is a fact of great practical value, that when inflammation supervenes on spasm, it is more inveterate in its ravages and more rapid in its course than perhaps under any other circumstances, and that if its approach be not prevented, it will often, after it has commenced, outrun the most vigorous remedies in its progress to gangrene. The tobacco injection is considered by the author the remedy of most general utility in all forms and stages of ileus. It is, certainly, a powerful medicine, and, if cautiously employed, may do much good. The quantity at first used should be small, increasing it according to the nature and degree of its effects. The application of cold to the lower extremities has been an old and favourite treatment, and its efficacy is attested by many cases. The patient is raised into the erect posture and cold water is dashed forcibly about his legs; some are satisfied with applying to the abdomen cloths wet with vinegar and water, and cold injections have been preferred by others. Cases do occur in which all these remedies may prove ineffectual; and recourse may then be had to opium; should abdominal tenderness, however, or an excited pulse betray the presence of phlogistic action, the lancet may be an appropriate preliminary. Lastly, stimulants will sometimes be found useful. When the constitution has been worn down by excessive pain, or the strength exhausted by active treatment, mild stimuli may and must be given. Aloetic wine, and tincture of aloes are highly spoken of, and a case is given which seemed to have been cured by galvanism. As this is a case of very considerable interest, and is referred to in corroboration of the Dr.'s views of ileus, it will be proper to detail it; and the history, which succeeds, we adduce as a specimen of the extent to which this disease may proceed, while still within the influence of art and reach of recovery.

A gentleman, aged, 50, laboured under pain in the right side of the abdomen, which felt hard, tender and distended, obstinate costiveness, and vomiting. The briskest purgatives were ineffectual, unless when aided by strong injections, and the relief they gave was very trifling. The application of galvanism was at length determined on, and its employment was almost immediately followed by a discharge of fæces, which was always preceded by a rumbling noise and commotion of the bowels. Twenty minutes was the period occupied by each application, but an urgent call to the night-stool not unfrequently broke up the operation. The stools were at first dark and hard, afterwards they became more natural, and in the space of ten days, all the tension and tenderness of the right side had completely disappeared.

A woman aged 20, was attacked with ileus in so violent a form, that for the first five days nothing was done which gave relief. On the 6th, she had urgent vomiting, pulse was 120, bowels bound, abdomen generally tender. The lancet and other means were again tried without effect, and in the afternoon the surface became cold, the features collapsed, the pain ceased, the pulse 140, vomiting severe, and in short, she appeared moribund. A small glassful of wine was now given every hour, and after some time she rallied, when the tobacco injection was tried in small quantities frequently repeated, and, what few would have anticipated, the sinking was not increased but diminished by it, and the vomiting was materially reduced:—On the 7th, her symptoms were all decidedly improved, and she was free from pain; from this time convalescence proceeded steadily.

“The remedies which I have now mentioned are those of which I have most experience; but various others are to be kept in mind, as being sometimes useful. The warm bath is often beneficial at an early period of the disease, before there are any inflammatory symptoms. Crude mercury, in doses of one or two pounds, I have tried repeatedly, and in some cases it certainly appeared to allay the vomiting; I have not observed any other effect from it. The forcible injection of a large quantity of fluid, to the amount of six or eight pounds, is said to have been successful in some cases. In the *Memoirs of the Medical Society of London*, vol. ii. some interesting cases are described in which it was used with advantage. Large blisters over the abdomen are likewise extremely beneficial; also the oil of turpentine applied externally or by injection. When the vomiting is very urgent, so as to prevent medicines from remaining on the stomach, large doses of calomel, of from fifteen to twenty grains, often remain better than any other medicine, and even seem to allay the vomiting. In such cases, also, I have sometimes found benefit from giving powdered aloes, repeated at short intervals in combination with the oxide of bismuth. Whatever practice is employed ought to be zealously persevered in, notwithstanding the most unfavourable appearances; for the disease has been known to resist the most active remedies and yet terminate favourably, as late as the 17th day.” 147.

Inflammatory Affection of the more external parts of the Intestines. When commenting at the beginning of this paper on the Dr's general division of his subject, it was observed that he arranged inflammatory affections of the alimentary canal into three classes;—inflammation of its peritoneal, muscular and mucous coats. These several forms he believes to exist separately, and to be distinguishable by one symptom, arising out of the varieties presented in the functional state of this organ. The truth and importance of two of these divisions,—affections of the mucous and peritoneal

coats,—will be universally admitted; but we have already questioned the expediency of the third division, founded, as it is, on a single symptom of very variable character, and productive, as must be evident, of little, if any practical good. Without again going into the question, or formally extracting passages from the best writers upon it, in proof of the variable condition of the bowels as to function in inflammation of their mucous and peritoneal coats, we shall think it sufficient to appeal to the individual experience of our readers, whether they have realized in their experience the distinction, that when the peritoneum alone is inflamed the peristaltic action of the intestines is unaffected, while it is torpid and inefficient when the disease is confined to their middle coat? Although in general the Dr's. test, diarrhœa, applies to affections of the mucous lining, even in it the criterion is fallible; for it will be shewn hereafter that not only inflammation, but extensive ulceration and other disease may occur within it, without increasing in the least the action of the intestinal canal. As a mere nosological point, we may sanction this arrangement, believing that cases *may* occur in which disease is exclusively confined to *one* of these tissues, and as such an arrangement has no influence on the treatment. Indeed, its practical tendency the author himself gives up, by considering peritonitis and enteritis together, as either one and the same disease, or diseases so prone to pass into each other, that they are at last very generally combined.

Peritonitis is treated of in the present volume under three forms, *simple*, *erysipelatous*, and *chronic*; the first is conjointly described with *enteritis*, and the last two in distinct sections.

In *simple peritonitis* the patient complains of abdominal pain, which may be as variously seated, as it is different in degree. In some cases it is equally diffused over the entire cavity, at others it is confined to a single region, and occasionally it appears in a still more limited form, being comprehended within the site of a single organ and the space of a single inch. When inflammation of this membrane occurs near the kidney, the Dr. thinks ischuria renalis may be the consequence, and there is no doubt but that it often deranges the functions of those viscera which it approximates or attacks. When in the lower part of the abdomen the bladder sympathizes, when in the upper, the stomach, diaphragm and liver are deranged. The pain is much increased by pressure, inspiration, and any exertion which will agitate the viscera of this cavity; and it is a fact of considerable value, that in some cases of the most inveterate character, there is either slight uneasiness only, or the pain moves irregularly about, remaining for a few hours in one spot, and suddenly removing to another. At first the pulse seldom rises above its natural standard, but as the disease advances it becomes accelerated, and while generally small it is sometimes round and full. Tympanitis is a frequent symptom of the last stage, it seems to arise from loss of tone in the texture of the gut, and is a very unfavourable sign. Simple peritonitis may be fatal in three days, or, by passing into a chronic or less active form, may occupy several weeks, or even months, and upon dissection exhibit either serum, lymph, pseudo-membranes, or pus. Gangrene is conceived to be a rare result, except when the muscular tissue is implicated, and when it is met with it is slight, partial, and accompanied with extensive deposition. —This last sentiment, for reasons already given, is, we believe, insufficiently supported.

Enteritis differs from simple peritonitis chiefly in the presence of vomiting and obstinate obstruction of the bowels. The pulse also is in general more permanently frequent, and the pain more violent and constant, often resembling the tormina of ileus. This, however, is not invariably the case; enteritis, on the contrary, being sometimes characterized chiefly by fever, with urgent vomiting and obstruction of the bowels, with tenderness of the abdomen, but without much complaint of pain. This variety seems to occur chiefly in young persons, as is exemplified in Cases LXIII, and LXIV. The pulse in enteritis is generally small and rapid, but not uniformly so, for we may find the disease with full pulse and little increased in frequency, as in Case LX.

"Enteritis is generally fatal with a tympanitic state of the abdomen and rapid sinking, and we commonly find on dissection extensive deposition of false membrane, with adhesion, often combined with deposition of flocculent or puriform fluid, and generally lividity, or some degree of gangrene. The disease, we have reason to believe, consists in inflammation affecting both the peritoneal and muscular coats at once: and it is probable that it may supervene either upon ileus or peritonitis, or may take place at first in its complete form. We shall afterwards see cause to conclude that it may likewise supervene upon inflammation beginning in the mucous membrane." 155.

Out of a rich abundance of very interesting examples we shall select four cases, as illustrative of certain phenomena in the character of peritonitis, which the writer has laid down in the form of conclusions from the facts adduced.

"1st. Extensive and highly dangerous inflammation may exist in the intestinal canal without obstruction of the bowels, and it may go on to a fatal termination while the bowels are in a natural state, or easily regulated by mild medicines, through the whole course of the disease." 171.

A young lady, aged 20, was seized, on the 9th of June, with symptoms of peritonitis, which was so relieved by ordinary treatment, that on the 12th she appeared convalescent. But on the evening of that day a brisk dose of aloes and colocynth was taken, which caused much irritation, and on the 13th her disease returned. On the 14th, severe pain, and tenderness of bowels, and frequent pulse, were the leading features. During the day she was bled twice, after which the pulse became small and the aspect depressed, but the abdominal tenderness continued, yet without vomiting. Weak tobacco injections, cold, and blisters to the abdomen, with small doses of aloes and hyosciamus, gave much relief; the pulse fell, the tenderness subsided, the bowels wrought freely and without pain, and in three or four days convalescence was restored. About the 25th a parotid swelling appeared, which suppurated and discharged a little matter by the ear; but the inconvenience it occasioned was trifling. On the night of the 2d of August she retired to rest, without any complaint except the parotid swelling, and early in the morning of the 3d, she awoke with cough and great dyspnoea. About 11 o'clock she was visited by the Dr. who found her sinking. Her face was cadaverous, breathing frightfully oppressive, frequent pulse, and her apartment was marked by an intolerable fetor. Thinking that the swelling of the parotid had burst into the larynx, it was opened; but healthy pus was discharged, and she died about 12.

Inspection. A pound of thin puriform matter, of intolerable fetor, was contained within a cyst of coagulable lymph, formed betwixt the diaphragm and upper surface of the liver; the left (right ?) lung adhered to the diaphragm, and the diaphragm was perforated by a small opening, through

which the matter from this cyst had passed into the bronchial tubes, and was traced to the trunk of the trachea. Peritoneal coat of liver inflamed, but internal structure quite healthy. Intestines universally adherent to the omentum and abdominal parietes, and among those adhesions were several cavities containing pus, one of which appeared to communicate with the great abscess above the liver. Behind the uterus two large abscesses were found in the pelvis. P. 162-3-4.

"2d. No diagnosis can be founded in such cases on the appearance of the evacuations. These may be slimy and in small quantity; they may be copious, watery, and dark coloured; or they may be entirely natural."

A gentleman, aged 25, was affected with pain of bowels, dysuria, and frequent desire to go to stool, with scanty slimy discharges. Pulse natural, several thin feculent stools were produced by oil, but the pain continued in paroxysms, for which sixteen ounces of blood were abstracted, and an opiate given. 19th. Passed an easy night, but in the morning the pain returned with increased violence, accompanied by dysuria and vomiting; pulse between 90 and 100, several feculent and consistent stools after a mild enema; 16 ounces of blood were again taken, aloes administered during the day, and an opiate at night. 20th. Much relief was again for a time obtained by the lancet, but sickness, depression, and faintness soon succeeded, his respiration became short, countenance anxious, voice feeble, and abdomen so tender that the pressure of the bed-clothes was intolerable; pulse 100. Was again bled from the arm and again relieved, took some aloes and had his bowels moved, breathed more freely, bore pressure over abdomen better, and, although on the night of the 21st he was delirious and vomited occasionally, from that time he improved, and ultimately got well. P. 160.

"3d. Extensive and fatal inflammation may be going on with every variety in the pulse. It may be frequent and small; it may be frequent and full; or it may be little above the natural standard, through the whole course of the disease."

A gentleman, aged 20, had pain in lower part of abdomen. Pulse 84, full, bowels natural. Was twice bled, and took opening medicine, which so improved his symptoms, that on the morning of the 7th he appeared free from complaint. In the afternoon some laxative, which he had taken, produced unusual disturbance, and at night he complained of a fixed pain in the upper part of the abdomen, shivering and heat, pulse 84. 8th. Pain of abdomen continues severe and fixed, repeated vomiting, and bowels obstructed, for which repeated bleeding and other remedies were ineffectually employed; pulse 96. 9th. Pain unabated, belly tympanitic but less tender, vomiting less severe, pulse 126; on the morning of the 10th he died.

Inspection. All the intestines distended and glued together by very extensive adhesions; omentum highly inflamed and adhering to intestines; lower extremity of small intestines and part of colon gangrenous, and an opening had formed in the appendix vermiformis, through which feces had escaped into the abdominal cavity. P. 166-7.

4th. Extensive inflammation may go on without vomiting and without constant pain; the pain often occurring in paroxysms, and leaving long intervals of comparative ease."

A woman, aged 40, from exposure to cold in November, became affected with pain in left side of abdomen, at first remitting but afterwards constant, which was considerably diminished by repeated bleeding and other ordinary remedies. She continued liable, however, to transient attacks, for which purgatives and opiates were successfully employed. After one of these attacks a hard swelling appeared in left side of the abdomen, the original seat of pain, which gradually increased, suppurated and discharged a large quantity of pus. This abscess continued open by several orifices for six weeks, when the tumour subsided, and the openings healed. During all this time her bowels were unaffected and her stools natural, but she had emaciated much. As soon, however, as the discharge ceased, she began to improve, complaining only of occasional pains, which were relieved, as formerly, by purgatives and opiates. But, on the 5th of May, a violent paroxysm occurred that resisted every treatment, and she died on the morning of the 6th.

Inspection. The intestines almost universally adherent to each other by recent and old connexions; about the middle of the small intestines the gut was bound down to the spine, and its calibre was much contracted. Above this contraction the canal was dilated into a large sac, but there was no vestige of the abscess beyond its cicatrix, which nearly corresponded with the situation of this stricture.

The practical truth of the following advice we would strongly urge, as, were we unable to vouch for its accuracy from our own experience, the cases above given would be more than sufficient.

“Keeping in view these sources of uncertainty, our chief reliance, for the diagnosis of this important class of diseases, must be on the tenderness of the abdomen. This symptom should always be watched with the most anxious care, whatever may be the state of the bowels, or of the pulse, or the actual complaint of pain,—and though the tenderness itself should be limited to a defined space of no great extent; for we have seen that with every variety in these respects, a disease may exist of a very formidable character, and be advancing to a fatal termination. A certain degree of pain upon pressure we have found attending a merely distended state of the intestine; but this differs from the acute sensibility of peritonitis in such a degree, that an attentive practitioner can in general have no difficulty in making the distinction. When the tenderness exists without distention, as is frequently the case in the early stages of peritonitis, there can be no difficulty in the diagnosis.” 172.

As simple peritonitis and enteritis are purely inflammatory diseases, the curative indications are plain, and the measures for accomplishing them few and obvious. If called in at the commencement the lancet is our first resource, and, unless the constitution or other circumstances be unfavourable, it should not be laid down until every dangerous symptom have been removed. As we have just seen, neither the pulse nor the pain, which are our ordinary guides in treating the phlegmasiæ, can be depended on. These facts should be ever present to the practitioner, and should induce him to look out for surer land-marks. Abdominal tenderness is a safer guide in the first instance, and, so long as pressure can produce any considerable uneasiness, it may be assumed as certain, that the disease as yet has not been fully overcome. We observe, in the *first instance*, with the view of supplying what seems to us an important omission of the author;—that when the disease has advanced far, without receiving or admitting

of active measures, the nervous system becomes frequently more or less implicated, and the natural sensibility of the affected parts is more or less impaired. Hence does it happen that, in the advanced stages of enteritis, the hand may be applied with firmness without eliciting much if any complaint, giving rise to the deception that the strength of the inflammation has been broken, and that the symptoms neither sanction nor require much therapeutic energy. Liberal depletion should be at first resorted to, and persevered in until a decided impression mark the treatment; and a very valuable recommendation of the author, if observed,—to follow up a large detraction with small ones frequently repeated,—may save the patient much blood, and the practitioner much trouble. This plan has the advantage of preserving the effect at first made at the very least expense to the system, of never permitting the disease to rally, but when once *floored*, of keeping it ever under; whereas, according to the ordinary custom, the advantage gained by the first bleeding is lost or much diminished before a second is resorted to, and the foe, which had been nearly overpowered during the first onset, is foolishly vouchsafed a breathing time, during which his shattered forces are reunited, and return invigorated to renew the contest. "The inflammation of a vital organ should not be lost sight of above an hour or two at a time, until the force of it be decidedly broken; and, unless this take place within 24 hours, the termination must be considered as doubtful." There are several circumstances to be collected from the preceding cases which shew that purgatives, at least of a drastic character, are injurious, while the inflammatory action is unsubdued. In two instances a relapse was the consequence of their employment; and, although the medical world feel very differently upon this point, we cannot help agreeing with the author, that purgatives make no part of the treatment of the early stages of enteritis. If the bowels be much constipated, either a mild aperient, or an injection, or both, will certainly be necessary in any stage to prevent distention, and to remove what would increase the existing irritability; and, towards the close of the attack, this class of medicines may be moderately exhibited, to prevent or remove that tympanitic state of the intestines which so frequently follows an attack of enteritis. With this view, aloetic wine, or aloes and hyosciamus, aided by friction externally and injections of beef-tea with turpentine, or tincture of assafoetida, may be used with caution; and, if the strength be low, some wine or brandy, sulphate of quinine, and laudanum, will add to their effects. In recommending this course we must be understood to speak only of that form of tympanitis which depends upon relaxation of the alimentary canal, and follows inflammatory action. There is another variety which *accompanies* inflammation, and there is a third form which occurs in the *first* periods of the disease, subsiding as the inflammation is subdued:

The tobacco injection is as strongly recommended in enteritis as in ileus, as tending to move the bowels and allay vascular action; it possesses one property which entitles it to much notice, and is, perhaps, peculiar to itself;—it is equally adapted to almost every stage and state of the disease. Leeches are entitled to no confidence except when the affection is limited, or the strength unable to support constitutional measures, and blisters are only to be applied on the wane of the symptoms. In a considerable number of cases evident advantage has accrued from the application of cold, by

covering the abdomen with cloths wet with vinegar and water, and injections of iced water have been plausibly recommended. After the inflammation has been subdued, the pulse not unfrequently retains an irritable character, is quick and agitated; in such instances digitalis may be given freely and with much advantage; and occasionally great weakness of the pulse and general powers, cessation of pain and coldness of the body unexpectedly appear, indicating the arrival of gangrene, while stimuli judiciously given often remove every unfavourable symptom. This fact is strikingly embodied in the succeeding case.

A man, aged 40, was affected with ordinary enteritis, for which he was very judiciously treated; but, on the fifth day of the disease, every symptom unexpectedly assumed a very unfavourable aspect. The pulse was 140, feeble and irregular, face pale, features collapsed, and entire body covered with cold perspiration. Wine was given in large quantities, to the extent of three or four bottles during the ensuing 24 hours. On the next day his pulse was 120, regular, and every other symptom ameliorated; on the third, his pulse fell to 112 and was strong; and in a few days more he was quite well. P. 176.

Erysipelatous Peritonitis. It has been long known that the mucous membrane of the nose and fauces may, as well as the external skin, be the seat of erysipelas, and that this disease may be indiscriminately propagated from either of these textures to the other; and it has been suspected by a few, that internal organs were not entirely exempt from it. Drs. Stevenson and Gibson have recorded cases confirmatory of this suspicion, and Dr. A.'s experience goes still farther in support of it. In the Spring of 1824, an epidemic of a peculiar character appeared in the Merchants' Hospital at Edinburgh. Its leading features were a slight erysipelatous affection of the throat, in some the internal fauces were studded with aphthous crusts, in others they were swollen, and in not a few the gums were spongy, and the lips encompassed with irritable ulcers. The larynx was unaffected in every case, by which peculiarity it was distinguished from *diphtherite*, and, excepting in two instances which proved fatal from the supervention of abdominal disease, the symptoms were mild, and little treatment necessary. In these two cases the patients were attacked in the same manner as their companions, and were steadily convalescing, when pain of stomach, tenderness of abdomen, and serious constitutional disturbance suddenly supervened, and cut them off in a few days. On inspection nothing of importance was found out of the abdomen, which exhibited deposition of lymph on various parts of the intestines, and a considerable quantity of milky puriform fluid in the peritoneal cavity. While this disease was raging in the hospital, many cases of a similar nature occurred to the Dr. in his private practice. In these the internal fauces were of a dark red but not swollen, and this redness was interrupted by aphthous crusts. The lining of the nose in general became tender, and discharged a copious morbid secretion, and the inflammation ultimately came out upon the face, assuming the character of common erysipelas. Thus, we have in these cases the same kind of disease and the same form of action successively attacking different textures, yet so modified in its results from this difference, that in the fauces it terminates in aphthæ, in the nose in depraved secretion, and on the face in ordinary

erysipelas. The two fatal cases, we presume, will render it probable that this erysipelatous action may invade the lining membrane of the abdomen, as well as that of the mouth, and that its symptoms, history and post-mortem products, may sufficiently distinguish it from *simple* peritoneal inflammation. The histories which follow are adduced as illustrations of the same doctrine.

A lady, aged 50, was seized with erysipelas of left leg, attended with much pain and swelling of the foot. After seven days the erysipelas of the leg subsided, leaving the foot unrelieved. But, upon the 8th, the foot also became suddenly well, and, within a few hours after, severe pain was complained of, first in the epigastre, and then in the lower part of the abdomen. This pain was not much increased by pressure, but she moaned much, was anxious and restless, pulse 100, bowels open. Bleeding, and the other usual means were ineffectually employed, her strength sunk, and she died about 24 hours after the metastasis.

Inspection. The upper half of the small intestines was of a dull leaden colour, the lower half of a very dark red, the whole much distended, and a considerable quantity of sanious fluid in the sac of the peritoneum. Besides there were no other vestiges of disease.

A woman, aged 30, while convalescing from an attack of erysipelatous inflammation of the throat, took some laxative medicine which unusually annoyed her, and, shortly after, pain of the abdomen came on, attended with vomiting. Pulse frequent and small, countenance exhausted and skin cold. It was attempted to bleed her, but little blood flowed, blisters, opiates and various injections were employed, and she died on the evening of the following day—48 hours from the attack.

Inspection. Omentum inflamed, and at the lower part adherent for a few inches to the sigmoid flexure of the colon: intestines distended and of a livid dark colour, without exudation: peritoneal sac contained a considerable quantity of puriform fluid.

In this form of peritonitis many particulars may be pointed out which are tolerably characteristic. The symptoms are exceedingly insidious when their degree is compared with that of the action which they indicate;—they are unusually rapid in their progress;—they are generally connected with some external form of erysipelas;—they are marked from their first appearance by an extraordinary depression of the vital powers:—the pathology is equally peculiar;—the ordinary result is effusion of fluid, frequently without any, and seldom with much adhesive exudation;—this fluid is sometimes bloody serum, sometimes serum mixed with pus, and sometimes it is milky, containing shreds of flaky matter; the intestines are sometimes of a uniformly dark red, occasionally slightly vascular, and frequently free from every mark of disease; in one of the above cases the omentum was inflamed. The Dr. believes that women in the puerperal state are obnoxious to both varieties of peritonitis as now described, and that much confusion has arisen from writers upon this subject having neglected to draw between them a proper line of distinction. In the purely *acute* form, the ordinary treatment, if early and promptly applied, is sufficient, and the fatal cases present extensive pseudomembranous depositions and adhesions: but in the erysipelatous variety the symptoms are more insidious, and are attended by fever of a typhoid character.

"This affection runs its course with great rapidity: it does not yield to, or does not bear, the usual treatment: and it shows on dissection, chiefly extensive effusion of a sanious, milky, or puriform fluid, with much less adhesion than in the other case, —often with none; and frequently without any sensible change in the appearance or structure of the part. There is little doubt that it is a contagious disease, or that it is capable of being conveyed from one woman who is affected with it, to another who is in the puerperal state. It appears as an epidemic at particular times, being very frequent and very fatal while it prevails; and erysipelas, or other affections of an erysipelatous character, have often been observed to be prevalent at the same time. Some of the cases which I have described under this section bear an evident resemblance to this formidable disease.

"This modification of peritonitis we have seen may be fatal without any remarkable change in the organization of the parts; and there is ground to believe, that, in some cases, it admits of a cure at an advanced period by the evacuation of the matter. In such cases, we have reason to conclude, that the inflammation had been resolved by the effusion, without leaving any injury to the organization of the parts. Several cases of this kind have been reported to me, in which, after symptoms of peritonitis, chiefly in the puerperal state, purulent matter either found a vent for itself through the parieties of the abdomen, or was evacuated by tapping, and the patients recovered. I have even observed some facts which induce me to believe that, in some modifications of this affection, a certain degree of peritonitis is resolved by effusion; that the effusion is afterwards absorbed, and that recovery takes place by a process of nature alone. This, of course, cannot be ascertained with certainty; but I have seen cases, with slight and obscure peritonitic symptoms, leave a tumefaction of the abdomen with much suspicion of effusion, which after some time entirely disappeared." 191.

Chronic Peritonitis. The Dr. considers chronic peritonitis a more frequent disease than has been hitherto suspected, and, therefore, dwells at some length upon its symptoms and history; but, after the large space which has already been devoted to this part of the work, we shall content ourselves with a very condensed abstract of its leading peculiarities, and with a case or two descriptive of its most important points.

There is generally pain in some region of the abdomen, which pressure or motion aggravates, and this pain may be permanent or periodical, general or limited; but occasionally the uneasiness felt is rather tenderness than pain, and sometimes there is no complaint but of distention and emaciation. The abdomen is usually fuller than natural, and often decidedly tympanitic; deep-seated spots of induration, which are tender to the touch, may be sometimes felt, vomiting frequently attends the other symptoms, and the state of the bowels is as variable as the character of their dejections. This disease may come on without any obvious cause; or it may succeed to more acute symptoms of the same nature, to external injuries, or such febrile diseases as measles or scarlatina. Although not common in childhood it frequently occurs in youth; in persons farther advanced in life it is often complicated with pulmonary disease. Its progress is marked by hectic symptoms, frequent pulse, and great emaciation; and, on dissection, adhesions between the intestines, sacs of purulent matter and these adhesions, thickening of the peritoneum and alimentary canal, ulceration of the mucous membrane and disease of the mesenteric glands, are the most frequent relics of diseased action. If no treatment have been pursued during its first stage, medicine can do little when it is far advanced; and, as its symptoms at any period indicate neither much activity nor strength, topical

bleeding, blistering, rest, and mild diet, comprehend a majority of the remedies on which we can depend.

The succeeding case is a faithful specimen of the silent progress which this disease pursues in its course to dissolution, and should of itself be a sufficient warning against its insidious character.

A lady, aged 16, without complaining of any particular pain or even uneasiness, had been for several weeks losing flesh and strength. Abdomen somewhat tympanitic, tongue foul, appetite impaired, pulse 120. Gentle laxatives, tonics and warm bath were employed, and, after the continuance of the above symptoms for some time, seemed to produce improvement. Her appetite was much better, her strength and spirits improved, and she slept well. The abdomen, nevertheless, remained somewhat tympanitic, and her pulse ranged between 100 and 120. This imperfect improvement continued but a short time, for during the next month every symptom lapsed into its former state; yet, except occasional gripings, not even uneasiness was felt in her abdomen. Towards the close of this month vomiting and diarrhoea supervened, and, after being confined for two or three days only throughout her entire indisposition, she died.

Inspection. The viscera of the abdomen were so agglutinated by disease that one intestine could not be distinguished from another; in this diseased mass there were several cavities filled with purulent matter, and presenting on their internal surface scrofulous ulcerations; much purulent fluid in the pelvis; much disease of the mesenteric glands, and considerable enlargement of the liver.

The following case supervened on rubeola;—

A boy, aged 5, a few days after a mild attack of measles, began to complain of pain of belly, loss of strength and emaciation. Pulse small and frequent, skin dry and wrinkled, appetite impaired, bowels irregular, being sometimes loose, at others slow. Various modes of treatment were ineffectually tried, and he died at the end of three months from the first appearance of his symptoms. *Inspection.* Intestines so extensively adherent to each other, to liver, stomach, urinary bladder, and abdominal parietes, that they formed one amorphous mass of disease; liver slightly, and mesenteric glands much enlarged; large quantity of coagulable lymph in peritoneal sac; lungs studded with solid tubercles.

DISEASES OF THE MUCOUS LINING OF THE INTESTINES.

The pathology of the mucous membrane is encompassed with very great difficulties, and is very imperfectly understood. In muscular and serous tissues the symptoms of disease are less equivocal, by being more perfectly pronounced, the constitutional sympathy which their derangements occasion is more acute and extensive, the sources of fallacy are less numerous, the danger to be feared better understood, and the difficulties to be contended with, perhaps, more completely within the influence of medicine. But in affections, and even serious and protracted affections of the mucous tissues, more especially that portion belonging to the alimentary canal, how

uncertain is our every guide, how random our every idea! Neither the pulse nor the pain, the structure nor the function, can be here depended on; and how often do we see patients, whose brains alone betray symptoms of disorder, and exclusively absorb the attention of their attendants, while their intestines upon dissection shew the only disease, and this disease even ulceration of their mucous lining! These difficulties are fully and faithfully portrayed by the author, and, while in some parts of the preceding pages, we have been reluctantly driven to the opposition bench, upon the present subject, we can sit and vote together.

As to the symptoms attending disease of the mucous texture in the alimentary canal, we may have purging or constipation, and not only so, but purging may arise from the mere presence of acrid matter in the intestines, while costiveness may be connected with ulceration; the stools may be thin and feculent, scybalous and mixed with morbid secretion, mucous and mixed with blood, or membranous and mixed with pus;—there is generally more or less fever, but the pulse and skin may be unaffected;—the pain may be acute or chronic, constant or remittent, and the most severe pressure may elicit none;—vomiting often occurs and is often absent, and unless in the early grades of the disease, when tenderness on pressure and a tendency to purge will be generally present, there is no one symptom so uniform or faithful as to be implicitly accredited.

The pathological products vary as much as the symptomatology;—portions of the mucous membrane may be somewhat red, or highly inflamed; its internal surface may contain flakes of coagulable lymph, or an entire lining of false membrane;—patches may be elevated above the common surface, and of a bright red;—small round or oval portions of it may assume a dark grey colour and pultaceous consistence, which, when separated, leave so many ulcers of the same size;—or these dark spots may be surrounded by areolæ of inflammation;—or the mucous surface may be studded with vesicles, containing clear fluid;—or a large portion of it may become soft, dark, and gangrenous; or it may exhibit ulcers of every form and variety, from a solitary and insignificant abrasion of surface to a deep and extensive destruction of substance with perforation; or, finally, firm tubercles may studd its surface, and pustules, like those in small pox, have been discovered on it.

With symptoms so conflicting for our guide, and pathology so various for their elucidation, it cannot be considered strange that our knowledge of this tissue is defective, that writers estimate its derangements at very different rates, and that in many particulars some may materially disagree, and not a few be wholly ignorant. The present author has done much in this department; he has endeavoured to separate every accidental appearance upon dissection from what is purely the production of disease, and to classify these results according to their stage of maturity, or degree of importance. But he has done more; he has attempted, amid so much confusion and variety, to link certain appearances after death to certain symptoms during life, and thus make out an etiologico-pathological chart of all the diseases in this department of the mucous system. Thus, when this membrane is inflamed, the bowels, he says, are irritable, and the stools feculent and thin; when inflamed portions of it are raised above the neighbouring surface, if

the disease be in the small intestines, the stools are bloody mucus mixed with scybala, if in the large intestines, with thin fæces; if the mucous lining be gangrenous, the dejections are dark and offensive, like the washings of putrid flesh; if it contain dark patches, surrounded by inflamed areola, or if these patches be dark, softened, and easily separable, the bowels are irritable, but the stools are tolerably healthy; if vesicles were found upon it, the stools consisted of tenacious mucus, assuming sometimes the form of tubes, and sometimes that of solid cords; if the membrane were ulcerated, and the ulcers in their earliest form, there would be a tendency to purging; if these ulcers were large with elevated edges and sloughing floors, copious discharges of muco-purulent matter mixed with blood, or shreds of flaky matter, are produced; and if they be large and deep, with elevated fungous edges and a dark fungous bottom, the intestinal functions and secretions may either be very much deranged, or perfectly natural. Although we believe that many of the statements, perhaps a majority, are founded, in fact, we fear that in some of them the Dr. is either too learned to be instructive, or too fanciful to be depended on. In a great majority of the valuable cases with which this part of the work is enriched, the character of the tongue has been comparatively neglected; and when we see the minuteness of Dr. A.'s inquiries on other points, and reflect upon the delicacy of the probe with which he must have examined the most of the cases laid before us, we feel somewhat astonished, but more disappointed, that he should have so overlooked a source of light, which, in our estimation, is as steady in its occurrence, and as faithful in its information as any other upon which he has depended.

Active inflammation of the mucous lining may terminate in several ways, the most important of which are the following:—

"I. It may be fatal in the inflammatory stage,—a greater or less extent of the membrane presenting numerous patches of redness, which are in general sensibly elevated above the level of the surrounding parts; and in some cases, these elevated portions present on their surface numerous minute vesicles. These are most commonly observed in the disease as it appears in infants; and at a certain period of their progress, the vesicles seem to pass into minute ulcers.

"II. By gangrene, a portion of the mucous membrane appearing of a uniform black colour, and of a very soft consistence, in which the muscular coat in some cases appears to participate. Vesicles full of a putrid fetid fluid have also been observed upon the membrane.

"III. By ulceration of various extent and appearance, generally mixed with fungus elevations.

"IV. By passing into peritonitis or enteritis. This takes place in two ways. In the one, the inflammation seems to extend uniformly through the coats, until they are all affected; in the other, one of the ulcers perforates the intestine, its contents escape into the peritoneal cavity, and very rapid peritonitis immediately follows." 226.

Dysentery frequently proves fatal in the *first* way, and the following case terminated in *gangrene*:—

A man, aged 50, was seized with general uneasiness of the abdomen; on the 8th and 9th of October he passed several stools, which consisted principally of blood, after a dose of oil; on the 10th there was much tenderness of the lower belly, with dysuria, the stools were not, however, bloody, but watery, dark and offensive, like the washings of putrid flesh, and he died on the 16th. *Inspection.* The great intestines much distended; that part

of them between the anus and middle of the arch of the colon gangrenous and black; from this to the caput coli they were variegated by numerous patches of a livid colour. The mucous coat, corresponding with the gangrenous part of the colon, was of a uniform black colour, soft and easily separated, and that lining the more healthy half was elevated into irregular patches of a deep red, with intervening portions in a more healthy state. On the inner surface of the caput coli were several distinct ulcers, and a few inches of the ileum beyond this were vascular and distended.

The *third* way in which this class of affections terminates is illustrated by the following history:—A girl, aged 3, about three weeks before her death was attacked with vomiting, pain of abdomen, and frequent calls to stool; her tongue was white, and she had much thirst. These symptoms continued until a few days before death, when oppression, aversion to exercise, screaming, and occasional comma came on; pulse from 130 to 150, stools frequent, green and yellow, pupils unaffected. *Inspection.* Ileum highly vascular, its mucous coat covered with many inflamed patches of a fungous nature, which were elevated and contained small ulcers; the portions of membrane intervening between these patches were healthy; mesenteric glands enlarged and vascular.

The *fourth* and last result of inflammation in this texture is secondary peritonitis. A woman, aged 38, who had been for more than a week labouring under fever, became suddenly seized, two days before dissolution, with most violent pains in abdomen and urgent vomiting, pulse 130, some hiccup. On *inspection*, the mucous coat of small intestines covered with small ulcers, one of which, seated in the lower part of ileum and surrounded by a ring of inflammation which was studded with small ulcers, had destroyed all the coats of the canal, and opened into the general cavity; peritoneal surface of small intestines much inflamed.

The following remarkable case we give, as containing within itself a specimen of nearly all the modifications of disease in the mucous membrane, and it is an important circumstance, that all this disorganization was the result of only nine days action. The reader will perceive how the character of the stools varied with the stage of the disease.

A lady, aged 35, on the 7th of July, was seized with vomiting, purging, and abdominal uneasiness, to remove which various means were tried in vain. On the 8th bleeding was attempted, but a very small quantity of blood was obtained; on the 9th, pulse 120, much vomiting, purging, and pain, tongue loaded, countenance anxious; bleeding, blistering, calomel and opium, and opiate injections, were used with very trifling relief, and she died without any remarkable change on the 15th. The stools during her illness were very various; at first they presented nothing different from those passed in diarrhoea; on the fourth day of the disease they were thin and mixed with bloody mucus; on the sixth they were fetid, and let fall, after standing for some time, some puriform fluid, very fetid and variegated with round spots of blood; and on the 8th and 9th they became dark, watery, and less feculent. On *inspection* the small intestines appeared externally healthy;—the colon was rather thickened and red, and at its sigmoid flexure there was some false membrane deposited;—mucous membrane of stomach and upper part of small intestines healthy;—that of ileum inflamed, the inflammation gradually increasing as it approached the cæcum; lining of caput coli very dark, and covered by well defined ulcers; farther

along the colon these ulcers became scattered, and interspersed with dark fungoid elevations of the mucous membrane. In the arch of this gut the ulcers became small like split peas, isolated and surrounded by pale membrane;—in its descending side its entire surface was brown, spongy, and fungous, without ulceration, and its coats thickened, even in some parts cartilaginous; this state of disease continued into the rectum, and only ceased about two inches from the anus, which two inches even had not escaped, as they were considerably vascular.

Dysentery, tenesmus, scybala, and bloody mucus have been associated in the reasonings of medical men for centuries, as nearly inseparable, if not etiologically allied; but many facts and testimonies tend to shew that dysentery may appear with every form of stool, and without either tenesmus or blood. Sir J. McGrigor observes that tropical dysentery is often much more like the diarrhoea than dysentery of Cullen, and it is certain that the parts concerned in the dysentery of Cullen and that of warm climates are as different as their symptoms. The rectum generally and sometimes the lower part of the colon are the seat of the nosologist's disease; while the entire colon, and often a large share of the small intestines were concerned in the colonitis of Dr. Ballingall, and the tropical dysentery of Dewar, Annesley, and other writers.

Before leaving this part of our subject we may observe that infants, of five or six months old, are frequently attacked by acute inflammation of this membrane, and, although the disease in its general principles is the same with that occurring in adults, it merits special notice, from the difficulty of distinguishing it from the bowel complaints of children at the period of dentition.

Chronic Diseases of the Intestines. Acute inflammation of the lining membrane of the alimentary canal, we have already seen, may destroy life during the acute stage; or may end in gangrene, in simple ulceration, and ulceration combined with peritonitis. We now add that it may also end in chronic disease, which, by producing only trifling and transient disorder, may continue for a long time without destroying life. Occasionally, however, emaciation and weakness are soon induced, the mouth and fauces become raw and aphthous, a burning sensation is felt in the stomach, and severe hectic symptoms appear. The character of this second class of mucous diseases is as variable as the first; there is usually severe diarrhoea, continuing for a few days and alternating with costiveness, sometimes with vomiting; in some cases the appetite is good, but more commonly it is capricious; abdominal uneasiness, of some kind, and to some extent, is a usual concomitant, which may be only elicited by pressure, or may amount to permanent pain; the stools may be bloody, purulent and feculent, or entirely made up of indigested food. The post-mortem results are equally diversified; we may find red patches of the membrane fungous, and raised above the common surface, or small defined and isolated ulcers, interposed by healthy structure; when the disease assumes either of these forms the bowels are purged and the stools fluid and offensive. Or we may have extensive tracts of ragged ulceration alternating with fungous elevations or, finally, the outer coats may become thickened and indurated, contracting the area of the tube, or forming adhesions to neighbouring organs. When this form of disease occurs—

"There are copious evacuations of morbid matter from the diseased surface, which are sometimes puriform, and sometimes consist of a mixture of a tenacious puriform fluid, with mucous, or semi-gelatinous matter; and the whole is often deeply tinged with blood. According to the extent of the disease, this discharge may come off uncombined and in considerable quantities; or it may be mixed with healthy feces. When the disease is confined to the lower part of the colon or rectum, we may have the feces coming off in a solid, or even a hardened state, but generally mixed with more or less of the morbid discharge; and, at other times, we may have the discharge coming off in considerable quantities without any appearance of feculent matter. When the disease extends along the whole course of the colon, the feces generally come off in a liquid state, and in this case, we may have the evacuations consisting sometimes of thin healthy feces, more or less combined with the morbid discharge; and, at other times, we may find the morbid discharge coming off without any appearance of feculent matter. When the disease is in the small intestine, we seldom see the peculiar discharge uncombined; it seems either to be in smaller quantity, or to come off so mixed with fluid feces as not to be easily distinguished. This form of the disease, in which the ulceration is confined to the small intestines, seems to be of frequent occurrence in phthisical cases; and indeed it appears probable, that, in some of these, it is the primary disease, and that the affection of the lungs takes place at a subsequent period." 252.

The phenomena attached to all these varieties of chronic disease the reader will admit to have been abundantly diversified and sufficiently uncertain, yet there is still another form, which the Dr. has considered important enough to receive distinct consideration in a separate section, in which the symptoms are much more equivocal, in which, in truth, there are no symptoms at all.

The two following cases will serve as specimens:—

A gentleman aged 60, who had enjoyed excellent health, if we except habitual costiveness, was reading to some friends after dinner, when he suddenly complained of a violent pain in the lower part of the abdomen, and vomited repeatedly. His countenance became pale, hands cold, and pulse feeble; the most judicious treatment was pursued without benefit, and he died in about six hours.

Inspection. Much feculent matter in the cavity of the abdomen, which had escaped through a hole in the colon, a little above its junction with the rectum; this hole was larger than a shilling, and was encompassed by a mass of indurated substance. Below this opening the intestine was very much contracted, and above it its internal surface was extensively ulcerated.

A gentleman, aged 35, became affected with symptoms of continued fever, which for the first two days were mild and excited no apprehension, but on the third, while at stool, he voided a very large quantity of fluid blood, fainted, and, upon recovery, again discharged so much as to saturate the mattress and carpet on which he lay. A variety of means were used to arrest it, but he died in a few hours.

Inspection. Intestines externally healthy, except lower part of ileum, which contained a patch of a very dark colour, that was much thickened; on the inner surface of this patch was a deep ulcer, as large as a shilling, with elevated edges, which was partially filled with fungus and coagulated blood.

Arterial hæmorrhage sometimes takes place from the rectum, and produces very great exhaustion. The constitutional symptoms it occasions are

sudden and severe, the pulse soon becomes weak and rapid, the face pale, and vertigo, head-ach, palpitation, and restlessness are felt on the least exertion. On examination in such cases a small fungous mass will be discovered within the verge of the anus, on the apex of which a minute artery bleeds *per saltum*. The treatment is simple,—the vessel has only to be tied, and, should a ligature not effectually arrest the hæmorrhage, a free application of lunar caustic will add to its effect.

Before going into the treatment of these various affections, it may be well just to allude to one point, which has been much agitated, and about which much unsettled opinion yet exists;—whether ulcers of the intestinal canal heal, and, if they do, whether the mucous membrane be re-produced? The first of these points, the cases which we shall adduce would answer in the affirmative; the second, we fear, as far as the volume before us is concerned, must remain undetermined. That ulcers of the fecal tube may heal, as well as discontinuations of surface in any other part of the body, we know of no reason for disputing; 'tis true, that their situation and other circumstances will generally retard and often prevent the healing process, and that these ulcers frequently occur in connexion with general diseases of a severe and inauspicious nature; but such facts will only prove the difficulty, not the impossibility of their cure. That the mucous texture may be re-produced, we, *a priori*, see no reason to deny; but we have never witnessed such an occurrence, and excepting the testimony of Bright, and, perhaps, two other pathologists, we know of no facts nor cases to be depended on in favour of it.

A lady, who was of a feeble and delicate habit from her youth, fell after puberty into a decided state of bad health. In Winter she was afflicted with cough, diarrhœa, and pain of bowels; in Summer these symptoms abated, but never wholly disappeared. Large doses of muriated tincture of iron and hyosciamus seemed for a time to afford some benefit, but, after being afflicted with more or less of these complaints for several years, she died of phthisis at the age of 24.

Inspection. Lungs extensively tubercular, with numerous vomicæ; lower half of stomach thickened and contracted; several portions of the inner surface of the intestines too vascular, and in many places there were "small circumscribed smooth spots, which had every appearance of the cicatrices of ulcers, which had healed;" other viscera healthy.

A lady, aged 18;—whose case is given at very great length, but whose prominent complaints for more than twelve months were, at first, impaired appetite, disordered bowels, feeling of heat in epigastre, weakness and occasional headach; afterwards were added aphthæ in throat, tender state of tongue, thirst and general fever; and, ultimately, a daily fit of febrile symptoms which continued for several hours, cough, tubercular expectoration, pain in left side of chest, imperfect respiration and other symptoms of confirmed consumption;—at length died, and upon *inspection* air and much sero-purulent fluid were found in the left pleural cavity: left lung partly hepatized, partly infiltrated with pus, and in many places filled with tubercles. By an aperture through the pleura covering its *middle* lobe (was it the *right* lung?) an irregular cavity in its substance communicated with the pleural cavity, and there were several smaller chambers communicating with it. Right lung healthy. The mucous membrane of the colon was

found thickly covered "with small spots of a clear white colour, which were remarkably distinguished by their colour from the mucous membrane surrounding them. Few of them were larger than the diameter of large pin-heads, and on minute examination they were distinctly ascertained to be vesicles, very little elevated, but when punctured discharging a small quantity of clear fluid. The whole surface of the membrane presented a very peculiar appearance, from the immense number of these spots with which it was covered, but the other coats were entirely healthy. In the mucous membrane of the *caput coli* there were two distinct spots of ulceration." P. 296.

In active diseases of the alimentary canal much depends upon prompt and early measures, and, seeing that the symptoms require from their obscurity unremitting attention to render them available in practice, no source of information should be left unexamined, in order to discover the seat and nature of the affection to be removed. To subdue the inflammatory action, to quiet the irritation, and to correct the morbid secretion of the canal, will comprehend all the treatment necessary in any of the preceding numerous varieties.

"1. For answering the first of these indications, the remedies on which we rely, when the case is seen at a period adapted to the use of them, are general and topical blood-letting, blistering, diaphoretics, and antiphlogistic regimen. On this subject, on which my own experience has been limited, I may now refer to the best practical writers on dysentery, as it is seen in various parts of the world, particularly Dr. Ballingall, Dr. Bampffield, and many others; and the practice has also received the high sanction of Sir James McGrigor, under whose instructions it has become the established treatment of dysentery by the medical department of the army. Dysentery, indeed, may exist in a degree in which it may get well without bleeding, but so also may peripneumonia or Bronchitis; and it may occur in unhealthy debilitated subjects, or in combination with low malignant fever, and may thus not admit of active treatment; but these circumstances only introduce new difficulties in regard to individual cases, and do not affect the general principles which regulate the treatment of the disease.

The use of general bleeding must of course be regulated by the activity of the symptoms, the constitution of the patient, and the period of the disease; for it is probable, that in general the period for active treatment is soon over. Much benefit is often derived from free local bleeding, which may be accomplished by leeches, applied either to the abdomen, or, when the disease is seated in the lower part of the bowels, to the verge of the anus. As diaphoretics, the best is perhaps Dover's powder; Ipecacuan in powder, in doses of gr. i. or ii. three or four times a day, has also been much much recommended, and James' powder, given in the same manner; but in all inflammatory affections of the mucous membrane of the intestine, the effect of antimonial preparations would appear to be rather questionable.

"II. The second indication, which is to quiet the general irritation of the canal, will be chiefly answered by mucilaginous articles and opiates, particularly Dover's powder, perhaps combined with chalk, with the mildest kinds of farinaceous food in very small quantity; and I imagine that much will be gained in the early period of the disease, especially when the affection is extensive, by taking into the stomach as little as possible of either food or drink; as from the morbid irritability of the parts, the mildest articles often produce great irritation. Suet dissolved in milk, has been much recommended: and a favourite remedy in the time of Sir John Pringle was a combination of yellow wax and Spanish soap, melted together over a gentle fire, and then rubbed up with water. The warm bath is often beneficial, and equal gentle pressure of

the abdomen, by a roller of elastic flannel, is a remedy which has been strongly recommended as of much efficacy in all stages and forms of dysentery.*

"III. For correcting the morbid condition of the membrane, after the force of the inflammatory symptoms has been subdued by the necessary means, various remedies appear to be useful, in different states and different stages of the disease. In the earlier stages, benefit is frequently obtained from doses of Dover's powder, of from 5 to 10 grains, combined with 1 grain of calomel, repeated, at first, every four or five hours, and afterwards at longer intervals. This applies to the dysentery of this country; in the more severe cases, which occur in warmer climates, Dr. Ferguson has strongly recommended a grain and a half of calomel, with one grain of ipecacuan, to be repeated every hour until the mouth is affected, when, he says, the dysenteric symptoms always cease. In the dysentery of tropical climates, calomel is given in still larger doses, as from 10 to 15, or even 20 grains, repeated three or four times a-day, generally combined with opium. Of this mode of treatment, as applied to the dysentery of tropical climates, I would not presume to give an opinion, because I have had no experience; but when I have seen a similar practice attempted in the dysenteric affections of this country, it has appeared to be decidedly injurious; and when mercury is given, it appears that the small doses of calomel combined with Dover's powder, in the manner which I have mentioned, is the form best adapted to the earlier stages of the disease. In a more advanced stage, when the morbid secretion continues after the inflammatory symptoms have been subdued, various remedies of a tonic and astringent nature appear to be useful,—such as, cusparia, lime water, oxide of bismuth, nitric acid, sulphate of alum, logwood, balsam of copaiva, acetate of lead, and various combinations of these with each other, and with small opiates, especially a strong decoction of cusparia with nitric acid and laudanum; and oxide of bismuth with cusparia and Dover's powder. Charcoal has been strongly recommended, and, in one very severe case, in which it was given in combination with Dover's powder, it appeared to Mr. Gillispie and myself to be decidedly useful. Nitric acid, combined with opiates, I conceive to be a remedy deserving of much attention even in the earlier stages, after the necessary evacuations.

"When the disease is chiefly seated in the lower part of the colon and rectum, various substances may be given in the form of injections. Of these, the most useful seem to be, in the earlier stages, mucilaginous articles, or thin arrow-root, with an opiate, an infusion of tobacco, or an infusion of Ipecacuan. After the first urgency of the inflammatory state has been subdued, I have seen decided benefit in relieving the tenesmus by injections of lime water, at first diluted with equal parts of milk or thin arrow-root, with the addition of an opiate." 280.

Purgatives are very doubtful medicines in this class of diseases; if there be much irritability they will do harm; and if the bowels are loose they cannot be required. Constipation occasionally occurs, and in such cases they may be necessary; but the mildest must be chosen, and even these must be given in the mildest doses.

"In the chronic form of the disease, the morbid conditions which we have chiefly to contend with, are either the chronic fungoid inflammation, or ulceration. The treatment is extremely precarious, and but few of the cases comparatively do well. The remedies which appear to be most generally useful are the following; lime water; vegetable bitters and astringents, especially the cusparia and logwood; preparations of iron; small quantities of mercury with opium, especially calomel with Dover's powder, or small doses of calomel with opium and ipecacuan; the resins, as turpentine,

* "See Dewar on Dysentery."

balsam of copaiva or tolu, with small opiates; sulphur with opium; nitric acid; various combinations of these remedies with each other, as a strong decoction of cusparia with nitric acid and laudanum. Repeated blistering on the abdomen is often very beneficial, also bandaging with a broad flannel roller, and tepid salt water bath. Sulphate of copper has lately been recommended by Dr. Grenville in various protracted affections of the bowels; and in any trials of it which I have had an opportunity of making in this class of diseases, it appears to be a remedy deserving of much attention. It is given in doses, at first, of half a grain, combined with an equal quantity of opium, and is gradually increased, if necessary, sometimes to the extent of gr. iii. with half a grain or a grain of opium, three times a day.

"In the treatment of all the affections of this class, much depends upon the most rigid attention to diet. Animal food in every form seems in general to be hurtful; and the greatest benefit results from a diet strictly confined to farinaceous articles and milk." 286.

Disease of the *mesenteric glands* is a frequent accompaniment on affections of the intestines, whether chronic or acute. At the earliest period of their disease these glands, when cut into, appear of a pale flesh colour, and are somewhat enlarged; their texture then becomes firmer, and, losing its fleshy aspect, assumes an opaque white structure like that of tubercle, which softens down first into a cheesy consistence, and afterwards into a mass like ill-conditioned pus. When one of these glands, in the first stage of alteration, is plunged into boiling water, its fleshy colour is exchanged for an opaque white, and, when boiled for some time, its weight diminishes, and a residuum is left, which is an opaque white, very firm and has the general characters of concrete albumen. In their more advanced stages of disease the loss occasioned by boiling is diminished, and the opaque white tubercular matter, when obtained pure, scarcely loses any. The Dr. thinks that during these changes albumen is deposited, at first in a soft and afterwards in a concrete state; and that the peculiar character of glands, affected with tubercular disease, depends on the presence of unorganized albumen in a very concrete form.

We have now closed a very long review of a very valuable work, and, although we have endeavoured to condense into our pages a great mass of important matter, we feel that our author has not yet received justice, and that our readers are not even yet in complete possession of the facts contained in this performance. But he who bears an honest attachment to his profession, will not rest satisfied with the review, no matter how laboured, of a work so distinguished as the present; and he, who merely wishes to know the character and rank of a new publication, would, probably give us little credit for carrying our labours any farther. Had the Dr. paid somewhat more attention to his style, he might have been throughout more elegant, and sometimes more correct. *Lapsus calami* are not uncommon, clumsy phraseology occasionally occurs, and there is a general looseness, both in the selection of his language and in the texture of his composition, which, in the estimation of some, may detract from the general ability of the work, and which a writer of Abercrombie's calibre ought to have avoided. These, however, are such trifling mar-strokes in a painting of such general excellence, that, if they do not tend by their *shade* to give vigour to the *light* of his happier touches, they can scarcely be considered to diminish the accuracy of the piece; and, while we believe a hint will not be thrown away, we feel any thing but a disposition to embody our strictures with the formalities and size of direct criticism.

II.

AN ESSAY ON THE OPERATION OF POISONOUS AGENTS UPON THE LIVING BODY. By *Thomas Addison*, M. D. Assistant Physician to Guy's Hospital, and *John Morgan*, F. L. S. Surgeon to Guy's Hospital. Longman and Co. 1829. Octavo, pp. 91.

The essay which we are about to notice is on a subject which has occupied the attention of the first physiologists of modern times, and more especially since the middle of the last century, when it really became a topic of philosophical enquiry. The investigations concerning the action of poisons on the human body, which were extremely imperfect during the preceding ages, were at length systematically arranged, when toxicology became a science about the period to which we have alluded. It is chiefly indebted to the labours of Fontana, Foderé, Brodie, Orfila, Magendie, and Barry. Few of the medical sciences have been founded so purely on the basis of observation and experiment, and in none have hypothesis and fact been kept more apart, and yet in none have the conclusions been more contradictory and discrepant. We can by no means agree with those who assert, that toxicology has arrived at the dignity of a perfect science; for, in truth, there is much room for further improvement. Similar to all other branches of medical science, this under consideration is famed for the instability of its principles; and even now it is distrusted in many particulars. This assertion will appear much more evident in our subsequent remarks; and we may safely maintain, that the mind of the medical public is well prepared to receive new facts and arguments on this most important branch of medical science. Previous to our offering any remarks on the production before us, we shall briefly remind our readers of the received opinions as to the action of poisons on the system. It is admitted by the most eminent national and foreign physiologists, that poisons act on the human body by one of three ways; 1st, by absorption through the lymphatics; 2d, by venous absorption and by the contact of the deleterious matter with the brain; 3d, by the action of the poison on the sentient extremities of the nerves to which it may be applied, and by their direct communication to the brain. Mr. Brodie, after many scientific experiments, arrived at the second and third conclusions; M. Magendie is the advocate for the circulation of the poison through the blood-vessels; and Dr. Barry agrees in the last opinion, but contends the poison must come in absolute contact with the brain before it can produce its effects. The authors of the work under notice have examined most rigorously the experiments and deductions of the preceding experimenters, and have undertaken to prove their conclusions objectionable and erroneous. They admit the accuracy of the experiments, but maintain that opposite deductions may be drawn from them. They have not rested here, but instituted numerous other experiments which appear to them much more satisfactory in deciding the question at issue. We have perused, with great care and attention, their observations and arguments, and admit they seem to throw strong doubts on the conclusions of their predecessors; but we can by no means give our entire assent to

their conclusion, namely, "that all poisons act on the system through the medium of nervous influence only." We freely acknowledge that the present authors have thrown additional light on the obscure subject of their inquiry; but we are decidedly of opinion, that much research is still necessary to convert their theory into a positive certainty. In order to render all parties impartial justice, and more especially to guard the profession from too ready an adoption of any theory, we must submit a full exposition of the objections and conclusions of our authors, and shall accompany them with a few remarks as we proceed.

We need scarcely observe that the inquiry on the action of poisons is of the greatest importance to the medical practitioner, as it embraces the consideration of some of the most obscure and unaccountable phenomena of the animal economy—not only the action of the animal, vegetable, mineral, and aerial poisons, but also the mysterious and inexplicable effects of contagions, and perhaps of the causes of all the diseases incidental to humanity, and perhaps their treatment. Having taken this view of the subject, we shall hope to obtain the indulgence of our readers, for the protracted notice we are induced to take of the work.

The Essay before us is divided into two parts: 1st. On the operation of poisons upon the living body, and a review of the opinions of former writers on the subject. 2d. On the opinions and confirmatory experiments of the authors upon the subject. They have deemed right to explain their reasons for this publication; and we give them in their own words.

"The experiments detailed in this brief Essay were undertaken without any intention of publication. The subject they were intended to elucidate coming within the scope of their duties as public Teachers at Guy's Hospital, the Authors could not but attach to it a lively interest, and were induced to institute the following enquiry, with a view to promote the instruction of their respective Pupils.

"The results, however, of their investigations, have otherwise determined them; for they discover, or imagine they discover, in those results, that which is well worthy the attention of the medical philosopher; and which, they are willing to hope, is calculated to throw additional light upon the subject which must ever deeply concern the physiological, the pathological, and therapeutical Students." Pref. vi.

They next allude to the public clamour against experiments on the lower animals, and apologize very amply, and in our opinion, very unnecessarily to the public, for those which they have instituted. It would almost appear that they meant the apology for the profession, which we need scarcely observe is a work of supererogation. Thus,—

"They with sincerity declare, that nothing but an ardent desire to advance the cause of their profession, and a well-founded hope of its ultimately tending to diminish the sum of human suffering, could have induced them to institute a mode of investigation so painful to every man of correct feeling." vi.

"They, however, are not ashamed to avow, that feelings of humanity have prompted them to economise suffering by varying experiments tending to establish the same position, instead of practising a frequent repetition of such as appeared to them reasonably conclusive in themselves. Neither have they, for similar reasons, deemed it necessary to confirm by experiment what seemed to them satisfactorily established by others. Mr. Brodie has shown, that tying or dividing the lymphatic trunks does not interfere with the operation of poisons on the system; the Authors, therefore, have not considered it

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expedient to repeat the experiments of that distinguished physiologist, but have confined themselves to the question, whether the absorption of a poison and its subsequent application to the brain are essential to the production of its specific effects upon the body. In conclusion, it may be observed, that if prejudice or preconceived opinion can invalidate testimony, it may probably enhance, in some measure, the confidence of the reader to be told, that, at the commencement of these experiments, the Authors entertained diametrically opposite opinions respecting the question at issue." viii.

Our authors commence their observations by explaining and defining what is a poison, which they conclude in these words:—

"Every substance, then, whether solid, fluid, or aerial, which produces morbid action in the system, is, strictly speaking, a poison: the term, however, is commonly applied to those only of the most active kind." 3.

Few persons will agree to this sweeping and indefinite definition, which embraces all the natural productions subservient to the uses of man for it is obvious that the most nutritious and innoxious aliments may produce in some habits morbid action, or disorder of function, and yet who will class them among the poisons? We are informed "that the immediate impression made by poisons on the system is a matter which continues to be disputed and obscure," p. 3; but we find our authors, towards the conclusion of their work, very dogmatically and confidently deciding this action on the system.

"The conclusion at which we have arrived is simply this:—

"That all poisonous agents produce their specific effects upon the brain and general system through the sentient extremities of nerves, and through the sentient extremities of nerves only; and that when introduced into the current of the circulation in any way, their effects result from the impression made upon the sensible structure of the blood-vessels, and not from their direct application to the brain itself." 60.

But to pursue the remarks of our authors in the regular form, we find an account of the various opinions as to the action of poison on the system, which may be worthy of insertion for the benefit of our younger readers.

"Now we know that before any sensible effect can be made upon the general system by the application of a local agent, it is essentially necessary that an impression should be carried to the brain by some intervening medium. It has, therefore, become a point at issue amongst former, as well as modern, physiologists, whether the actual contact of the poison with the brain is necessary for its operation, or whether sympathy between the nerves of the poisoned part and the brain is sufficient to establish a communication through which that organ may become affected.

"To bring a poison into actual contact with the brain, it is necessary that the substance should be carried to that organ from the poisoned part through the circulation, either by the medium of the veins, or by the absorbent vessels;—that it should either be conveyed indirectly into the circulating blood, by entering and passing through the absorbents to the subclavian veins; or that it should, on the other hand, directly enter the veins of the poisoned surfaces, and thus be carried immediately into the circulation by passing through those veins into the heart; in which latter case, the poison is said to influence the brain by the medium of venous absorption.

"The advocates for the theory of venous absorption, therefore, suppose that every substance which produces a specific action upon the system, must necessarily enter

the veins of the poisoned part, either by what they call an imbibition or soaking through of their coats, or by the capillary suction of their extreme branches; that having thus fairly penetrated the venous tube, the poison is conveyed in the usual course of the circulation to the heart, and thence to the lungs, where, the blood having undergone a chemical change in other respects, returns, still impregnated with poison, to the centre of circulation, the heart, from the cavity of which organ, it is sent by the arteries to the brain; and then, but not till then, does the poison meet with a part of the living solids upon which it is capable of producing a specific influence; and that, therefore, actual contact with the brain by the medium of venous absorption is essentially necessary for the production of those consequences which result from the application of poisons to any part of the living body.

"On the other hand, those who support the theory of nervous communication between the poisoned part and the brain, assert, that the constitutional disturbance arising from the application of a local agent, is adequately accounted for by the connexion or sympathy naturally existing between the extremities of the injured or poisoned nerves, and the sensorium.

"This is, perhaps, one of the most important questions to which a physiologist can direct his attention; it is not confined to the phenomena produced by the action of poisons,—to the operation of arsenic upon the stomach,—to the effects of opium upon the brain, nor to the deadly consequences which result from the wounds inflicted by venomous reptiles; but it involves a theory which has reference to every morbid action that takes place in a living animal, from the operation of local irritation upon the functions of the brain and nervous system: for whether constitutional disturbance shall be produced by the imperceptible operation of noxious miasmata, or whether it shall arise from a visible and local cause, as in the inoculation of small pox, syphilis, or hydrophobia, still we find no distinct line of demarcation separating the essential characters of what is strictly called a poison, from those produced by more general and more ordinary causes of disease." 8.

We have next a lucid account of the effects of several poisons, as hydrocyanic acid, contagion of plague, and hydrophobia; and of the interval that may elapse between the application of the cause and the developement of the effect. In elucidation of this point, we are informed that the most perfect resemblance exists between the symptoms of tetanus, and those caused by nux vomica; between the effects of gun-shot wounds, the contagion of fever, and "the poisoned wound of a venomous reptile." Thus a slight contused wound inflicted on the bravest soldier will cause such prostration of the vital powers as to extinguish life, and this by the depression of the nervous system through means of its sympathy with the nerves of the injured part. The contagion of plague has acted as fatally, and the bite of a rattle-snake has produced sudden death in the same manner. These facts having been premised, our authors proceed to question the conclusion, that a poison or any ordinary cause of disease shall at one time produce constitutional disturbance through one system of organs, and at another time through the medium of another. This is the question at issue, and therefore the authors shall speak for themselves.

"Analogy, therefore, as regards effect, can be perfectly established between the consequences of a local injury, those which are produced by the poisoned wound of the more venomous reptiles, and those which arise from the influence of an ordinary cause of disease. Therefore the analogy between poisons and other agents capable of exciting morbid action in the system is complete, as well as regards their sensible effects, as in reference to the interval of time which may elapse between the application of their causes, and the developement of their effects." 14.

"All fair analogy forbids the conclusion, that a poison or an ordinary cause or disease shall at one time produce constitutional disturbance through the medium of one system of organs, and at another through the medium of another system of organs: that, under certain circumstances, a poison or any other cause of disease shall affect the functions of the brain and nervous system, at one time through the medium of the nerves, at another by the circulation, and at another by the action of the absorbent vessels: that at one time a poison shall be taken up by the veins, and carried through the circulation to the brain, before it produces any sensible effect: that at another time the absorbent vessels shall take up the substance, and by their communication with the subclavian veins, be thus instrumental in carrying the specific agent into the circulation, and thence to the brain: and that again at another time the impression made upon the extremities of the nerves of the poisoned part shall at once, by the medium of those poisoned nerves, be conveyed to the brain, independently of absorption either by the veins or absorbent vessels. It is contrary to all fair analogy to suppose that any variety observed in the effect of a local agent can essentially depend upon the medium by which it is carried into the system.

"As reasonably might it be presumed that at one time the sense of taste was communicated by a branch of the fifth pair of nerves, and at another time by the salivary ducts, as to entertain a belief that veins, absorbents, and nerves individually performed a function of precisely a similar nature.

"On the contrary, every organ in the living system is destined to perform its proper functions, and, as far as our physiological researches have yet extended, we are justified in assuming that no two organs in the human body are capable of performing the same function, neither can two functions be performed by the same organ.

"It will not, for instance, be said that the sympathy between the brain and stomach is conveyed along the eighth pair of nerves at one time, and by the circulating system at another: that when vomiting occurs as a consequence of concussion of the brain, it is occasioned by nervous sympathy; and that when morbid sensibility of the brain is produced by derangement in the digestive organs, that morbid sympathy is the result of absorption: that there are two roads between these two organs, by which sympathy is established; the one leading from the head to the stomach, and the other from the stomach to the head.

"Since, then, the various phenomena resulting from the effects of poisons upon the system are too intimately connected with those produced by other causes of morbid excitement to admit of any distinct line of separation; since we are led by analogy to believe, that the medium by which an impression is made upon the brain and nervous system is the same in both cases, it must be manifest that the question, which has arisen among physiologists in every age, respecting the medium through which poisons influence the general system, is one that has reference also to the mode in which all morbid phenomena are produced in the living system; and, therefore, it involves a theory of the highest importance to the physiologist, to the physician, and to the surgeon; a theory, indeed, intimately and inseparably connected with every branch of science which has for its object the elucidation of those phenomena produced by local agents of every description upon the living body." 18.

The opinions of the earlier physiologists, Fontana, Orfila, and others, are allowed to have afforded much valuable information on the effects of the different poisons; but as to the medium through which those effects are produced, they have left the inquiry where they found it, involved in doubt and obscurity. The received opinions are again detailed, and in conclusion

we are informed, "that popular opinion and modern publications favour the theory of venous absorption." We cannot readily comprehend what degree of weight is due to popular opinion, on the intricate subject before us, as we have received an early impression, that public fame is worthy of little credence on any occasion, and of none in philosophical discussion. Our authors next proceed to analyse the experiments and opinions of Mr. Brodie, M. Magendie, and Dr. Barry, and certainly with much ability and judgment, but we must decline offering an opinion in support or defence of the parties at issue, all of whom are so well able to defend themselves, and shield ourselves under the adage of a classic writer,—

Non nostrum inter vos tantas componere lites.

To proceed then to the subject:—we have to inform our readers, that some of the experiments of Mr. Brodie are first examined, especially those on which he has formed his opinion. We cannot avoid inserting them as detailed in the work before us.

"In the first experiment, the essential oil of bitter almonds was applied to the tongue of a cat, in consequence of which the life of the animal was instantly destroyed.

"The second experiment consisted in the injection of the same poison into the rectum of another animal of the same species, by which death was occasioned in two minutes.

"In neither case were any morbid appearances found on dissection.

"From these experiments a conclusion has been drawn, that the poison acted upon the brain by the medium of the nerves." 21.

To the deductions made by Mr. B. our authors object in no gentle terms.

"But we must protest against the train of reasoning by which the theory of nervous communication has, in this instance, been supported; for in support of that theory it is assumed, that the susceptibility of any part of the human body to a morbid impression may be correctly estimated by a dissection of its nerves, and that in proportion to the greater size and number of those nerves will be the rapidity with which such morbid impression is conveyed to the brain. We must also dispute the assumption, that the extreme irritability of the nerves of the tongue, under one proper cause of excitement, is to be considered as a proof of their increased excitability to action under the impression of a morbid agent.

"Each assumption appears to us to be equally untenable, and to involve a theory respecting the multiplied functions of a single nerve, which is not only unsupported by analogical reasoning, but which is in many instances directly contradicted by fact.

"Analogy teaches us, that to each fibril of a nerve a separate office is assigned; for we have not a single instance to prove that any one nervous filament in the living system is capable of essentially performing a double function." 23.

To controvert the conclusion of Mr. B. the following experiment was instituted.

"The spinal marrow of a half-grown rabbit was divided; the leg was inoculated with strong Prussic acid: the animal died in three minutes after the introduction of the poison, this being the usual period of time in which that poison was found to operate upon these animals under common circumstances when introduced into the same part.

"Now, if the impression produced upon the brain by the application of Prussic acid to a distant part be the consequence of its action upon nerves of sensation and volun-

tary motion, as has been supposed to be the case by Mr. Brodie in his experiment, we should be happy to receive from the advocates of that gentleman's theory a satisfactory explanation of the result of the experiment just related.

"If, on the other hand, the impression of the poison be carried to the brain by other organs, we, for the present, leave the advocates of venous absorption and infiltration to account for its instantaneous effect upon the system when applied to the mouth." 26.

Mr. Brodie was of opinion, that a poison may act on the brain by entering the circulation through the divided veins of a wounded surface. Having tied the thoracic duct of a rabbit, he innoculated its leg with ticunas, and the poison proved fatal in the usual time; and he therefore concluded the action could not have been through the absorbent vessels. He also maintains that a poison must enter the substance of the brain through the circulation of the blood. In proof of this opinion, he tied a tape half an inch wide round the thigh of the rabbit, having excluded the sciatic nerve; the leg was then poisoned with ticunas; no sensible effect was produced at the end of half an hour, the ligature was then removed, and in twenty minutes the animal was found motionless and insensible. To disprove this opinion the following experiment was made.

"Four drops of Prussic acid were applied to the wounded foot of a full-grown rabbit, by which death was produced in two minutes and a half.

"In another rabbit of the same age a ligature was tied round the leg, to the careful exclusion of the sciatic nerve; six drops of the same poison were then applied to a wound in the foot of the strangulated limb, and without producing the slightest sensible effect.

"Mr. Brodie is satisfied that the poison of Prussic acid acts upon the brain by the medium of nervous communication; it is manifest, however, from the foregoing experiment, that, according to the view which he has taken of the subject, the same argument by which the theory of venous absorption is supported in reference to the poison of woorara, holds equally good in this case as applied to the poison of Prussic acid.

"Either, therefore (according to Mr. Brodie's train of reasoning,) we have a direct proof that Prussic acid does not act upon the brain by the medium of the nerves, or we must consider this theory respecting the venous absorption of other poisons to be entirely unsupported by the result of the experiment upon which that theory was principally founded; for, according to the position which Mr. Brodie has taken, the application of Prussic acid to the strangulated limb ought to have produced its usual effect upon the system; whilst the division of the spinal marrow, according to his views of the subject, ought to have precluded the possibility of any nervous communication between the brain and any part of the lower extremity to which that poison had been applied; yet, in both cases, we find that such a supposition is directly opposed to the evidence of fact.

"Whether, therefore, the poison of woorara affects the system through the medium of nerves, or whether it be carried to the brain by the circulation, is a question which cannot be satisfactorily settled by the experiment which Mr. Brodie has instituted, for the purpose of settling that disputed point, since the explanation he has given of their results is directly contradicted by the other experiments mentioned." 33.

Mr. Brodie's theory of the absorption of a poison through a divided vein is also opposed, and decided to be "physically impossible." We must here insert the reasons assigned in the words of the authors, as we find it impos-

sible to condense, or rather to comprehend the ambiguity of the two following sentences. We are not disposed to criticise severely the style of modern writers, but we cannot but animadvert on the extraordinary length of most of the sentences of the present work, which often renders the meaning obscure, and confuses the mind with the multiplicity of opposite facts and opinions which are included in a single period. We offer the subsequent examples in justification of this remark.

"When a vein is divided, it is well known, that unless some branch be interposed between the truncated extremity and the next valve in its course towards the heart, unless the current of blood be driven through the cut extremity of the tube by collateral branches, we find that the sides of the vessel as far as the next valvular interruption will collapse and remain inactive: supposing the poison, then, to enter this flaccid tube, it is completely prevented from mixing with the circulating blood which fills the vessel above the valve by the pressure made by that circulating blood upon the opposite side of the valve, and, consequently, under such circumstances, unless it can be proved that a poison has the property of propelling itself, it requires no argument to prove that the substance, instead of passing into the circulation, will remain stationary in that part of the vessel through which no circulation is carried on. If, on the other hand, circulation be carried on by collateral branches through that part of the tube which lies between the nearest valve and the mouth of the divided vein, the effect will be still more unfavourable to Mr. Brodie's hypothesis; for the circulation in that part of the vessel will be reversed, and, consequently, instead of being carried towards the heart, the poison will be washed out of the wound: in either case, therefore, it seems highly improbable that the poison can pass through the circulation to the brain by the medium of a divided vein." 34.

Again we find it impossible to condense the concluding censure on Mr. B.

"With regard to the general theory of venous absorption, as supported by Mr. Brodie's experiment of applying a ligature to a limb which has been poisoned, we have to observe, that the experiment will admit of a different explanation from that which he has furnished us; for since it is proved that the nerves of sensation and volition are not necessarily concerned in carrying to the brain the impression of a certain poison, which he admits must affect the system by nervous communication with the sensorium; since it is therefore obvious that other nerves, performing different functions, must be concerned in the operation of that poison upon the brain; since we have proved that a ligature placed around the limb, to the exclusion of the sciatic nerve, in the manner above stated, produces the double effect of paralysing the nerves upon which one poison operates, as well as of stopping the circulation through the part, it may be fairly inferred, that if the other poison should happen to act upon the brain by the medium of the same set of nerves, the operation of that poison during the period of strangulation would be suspended from a similar cause, and that, consequently this experiment relative to the absorption of woorara is quite inconclusive as supporting the truth of either theory." 36.

Having disposed of Mr. B.'s opinions, our authors proceed to examine those of M. Magendie, the substance of which is, that the admixture of all poisons with the blood in the poisoned part is absolutely necessary to their operation on the body; and this deduction was made from the following experiment, which our authors "oppose in the strongest possible manner." A dog was stupefied with opium, and the femoral artery and vein were divided, but re-united by pieces of quill which were secured in the truncated vessels, the limb was amputated, all nervous connexion with the body

of course destroyed, but the circulation was interrupted. The poison of upas was applied to a wound in the severed limb, and produced its deleterious effects in the usual time. Pressure was made occasionally on the vein, when the symptoms of poisoning ceased, but returned after the removal of the pressure. This experiment appeared perfectly conclusive as to the absolute necessity of venous absorption, as the medium of conveying the action of the poison to the brain. The substance of our author's objection to this experiment is, that if a dog be stupified by opium, it is impossible to determine, if upas be applied, whether the animal shall have been destroyed by the one or the other, or by the combined action of the two. Again it is maintained, that the poison must have acted on the inner surface of the veins and arteries before it could reach the brain; or, in other words, on the capillaries or nerves of such surface. It is also doubtful, whether the brain, or the nerves of the vein to which the poison has been applied, receive the first impression. We hope we have been correct in stating the meaning of the passages, which we have condensed—on the whole, the experiment only proves the entrance of the poison into the vein; nor is it to be inferred, that such application of a poison is absolutely necessary to its operation. Our authors conclude in these words:—

“We contend, then, that M. Magendie has left the question relative to the necessity for venous absorption and cerebral contact, as connected with the operation of poisonous agents, in precisely the same state as he found it.” 50.

The opinions of Dr. Barry are next noticed, and the following experiment commented on. Dr. B. introduced four grains of upas tientié into a wound on the thigh of a small dog: and applied a cupping-glass and piston to a similar wound, but unpoisoned, in the opposite thigh. Symptoms of poisoning took place in eight minutes. The cupping-glass was then removed to the poisoned wound, a vacuum established, and instantly the symptoms were alleviated. “The animal was truly recalled to life, but from time to time suffered slight attacks of tetanus. After a quarter of an hour the glass was removed, and the animal appeared restored to health.” Our authors observe in italics, “the animal was found dead some hours afterwards;” and they cannot comprehend the reason of applying the cupping-glass to the simple wound in the unpoisoned limb. Dr. Barry concluded from this and many other experiments, that the circulation through the extreme branches of veins is kept up by atmospherical pressure upon the surface of the body, and that venous absorption is necessary as a means of communication between a poisoned surface and the brain. To the last conclusion our authors object in these words:—

“It will, we think, be admitted by every one, that the soft structures of the surface of the body, which are covered by an exhausted cupping-glass, must necessarily, from the pressure of the edges of that glass, be deprived for a time of all connection, either nervous or vascular, with the surrounding parts. That the nerves must be partially or altogether paralysed by compression of their trunks, and that, from the same cause, all circulation through the veins and arteries situated within the area of the glass must cease: this, however, is not the only change which is produced in a part by the mode in which Dr. Barry has, in his experiments, removed from it the pressure of the atmosphere; for, not contented with merely stopping the circulation, we are informed that the rarification of the air within the glass was still further increased by means of a

small air-pump attached to it, so that the fluids contained in the divided extremities of the vessels were forced into the vacuum, and with these fluids, of course, either a part or the whole of the poison which had been introduced.

"In such a condition of parts, it will be manifest that the compression on the one hand, and the removal of the poison from the wound on the other, will explain in a very satisfactory manner the result of the experiment, as well to the advocate for nervous communication, as to the supporter of the theory of venous absorption. For if the extreme branches of the nerves of a wounded part be paralysed by the pressure of a cupping-glass, of course no sympathy can be established between those nerves and the brain. Or, if the poison be entirely removed from its contact with the nerves by the formation of a vacuum over the wound, we may reasonably suppose that the cause of irritation being no longer in operation, the effect will be no longer apparent; and, consequently, whether the impression made upon the system be the effect of the actual contact of that poison with the brain by the medium of venous absorption, or whether it be produced by nervous sympathy, we may in either case expect from Dr. Barry's experiments precisely the same result as he has described to us." 57.

There is a good deal of force in the explanation offered by our authors on the effect of the cupping-glass in the prevention of the action of poisons; but we cannot admit that the confirmation of that fact, or rather the revival of the remedy, is not something novel in the treatment of poisoned wounds—no matter how the action of the poison is prevented, whether it be by the cessation of the functions of the lymphatics, veins, or nerves of the injured part; the knowledge of the fact is worth all the theories that have ever been offered on the subject. If the remedy prove equally efficacious in hydrophobia as it has in the numerous instances in which animals have been poisoned by venomous reptiles, and of this there is the strongest probability, we cannot help thinking, that Dr. Barry has added something new, and added more real and solid practical information on the treatment of poisoned wounds, than all the writers on toxicology collectively. We by no means assent to all that gentleman's theories; but we fully agree with our Northern contemporary that "he is entitled to a very high rank among the ablest physiologists of the present day."* With respect to the opinions of Mayo and others it is said they contain nothing but the re-statement of those just adverted to, and therefore it is unnecessary to notice them separately; and thus conclude the preliminary observations on the opinions of former toxicological writers. We now arrive at the second part of the work, which is on the opinions of the authors upon the subject of poisons. Here we deem it right to insert their own language.

"Hitherto we have refrained from declaring any decided opinion whatever as to the *modus operandi* of poisonous agents on the living body; but having assumed it to be unphilosophical to admit a two-fold operation—to admit that such agents may at one time act upon the general system, through the medium of the sentient extremities of nerves, and at another time by the direct application of the poison to the brain, through the medium of the blood; and having attempted to show the fallacy of those experiments upon which the notion of a two-fold operation of poisons has been founded,—we must now venture to acknowledge an attempt to establish the truth of a theory, which we conceive to be supported as well by the experiments of our predecessors, as by those which we have ourselves instituted upon the lower classes of living animals." 60.

* Edinburgh Medical and Surgical Journal, 1827, v. 27.

" In endeavouring to establish the truth of this our theory respecting the *modus operandi* of all poisonous agents, we cannot be insensible to the powerful array of authority which is opposed to us, nor to the influence which that authority has probably exerted upon the minds of all our readers; we feel, therefore, that we have to contend with the prejudices as well as with the arguments of our opponents.

" Brodie, Magendie, and Barry, all appear to be quite satisfied, that in many instances the venous absorption and direct application of a poison to the brain are absolutely necessary to its operation upon the general system; although they are compelled to admit that some poisons act at once through the sentient extremities of nerves. Dr. Barry, however, has particularly laboured to show in how short a time a poison may reach the heart through the medium of venous absorption; a circumstance calculated, if not really intended, to cast a shade of doubt upon the operation of poisons through the nerves in any case." 61.

We have already given the theory of Dr. Addison and Mr. Morgan; namely, that, " all poisons act on the system through the medium of nerves only." They are surprised that former physiologists should not have admitted this theory. They had seen it exemplified in the effect of opium on a pained part, of belladonna on the iris, and in certain phenomena which take place in disease. Thus—

" A person receives a slight lacerated wound, a burn, a puncture from a spicula of wood, or a rusty nail; the irritating cause being removed from the part, all shall appear to be going on well, when suddenly symptoms of tetanus supervene, and proceed to the destruction of life: here we have, then, the mere irritation of the nerves of a small portion of the body, so deranging and involving the entire nervous system, as to give rise to one of the most formidable of all diseases, and this, so far as we know, without the slightest evidence of any absorption of morbid matter into the current of the circulation, and with just as little evidence of any thing noxious being directly applied to the brain. If, then, mere irritation, mechanical or otherwise, prove sufficient to derange the whole nervous system in this instance, where, we would ask, is the difficulty of conceiving that morbid irritation, and consequent general derangement, in the system, should result from the application of a poison, altogether independently of any absorption whatever?" 65.

These are strong facts in support of the proposed theory. Again we are reminded how many poisons act too suddenly for the medium of absorption. It is said, that the exclusion of the sciatic nerve in a limb included in a tight ligature as already described, rendered that nerve incapable of performing its functions in the absence of all circulation. This is a strong objection, but one that equally applies to the experiments of our authors. Of this hereafter.

In confirmation of our authors' deductions the following experiments were instituted.

" To prove the extreme susceptibility of the inner coat of a vein, when exposed to the action of a poison, the following experiments were made:—

" The jugular vein of a full-grown dog (in size about that of a common harrier) was laid bare to the extent of about two inches; the circulation through the denuded vessel was then completely stopped by the application of two temporary ligatures, one of which was tied round the upper, and the other round the lower, part of the exposed vein. The vessel was then divided between the two ligatures, and the truncated extremities reconnected by means of a short brass cylinder or tube, within which was placed a portion of arsenic of the size of a grain of canary seed. In this way the continuity of the canal between the

temporary ligatures was preserved entire, the brass tube being inserted and tied within the mouths of the cut extremities, and consequently, allowing, on the previous impediment to circulation being removed, a free passage of blood from the upper to the lower part of the vein; with which blood, of course, the poison in the interior of the tube would instantly be mixed, and carried through the circulation.

"Both the temporary ligatures being then removed, the accustomed circulation through the vessel was re-established; and in forty-five seconds the animal dropped on the ground, completely deprived of all power over the muscles of voluntary motion; in two minutes convulsions and respiration had entirely ceased.

"We were perfectly aware, in making this experiment, that the result might be adduced in proof of the truth of the theory of the cerebral contact, as well as of nervous communication of a poison; it was therefore, merely made for the purpose of affording a contrast to the following:—

"The jugular vein of a dog, of the same size and age with the preceding, (both being from the same litter,) was exposed, and separated from its surrounding connexion, to the extent of three inches; temporary ligatures were then applied, as in the former case. A small opening was then made in the vein, immediately above the lower ligature, through which a cylinder of quill was pushed into the interior of the vessel; within this quill a piece of woorara, of the same size as that used before, had been previously inserted. The vein was now again tied by a permanent ligature above the opening, through which the quill had been thrust, leaving a space of two inches and three quarters between the first upper temporary ligature and the permanent one last mentioned; the interior of the vessel between the two containing the poison which was thus prevented from coming in contact with the sides of the vessel, until washed by blood out of the quill in which it was contained. The upper temporary ligature was next removed, so as to allow the blood to pass down into the lower part of the vessel as far as the lower permanent ligature, and, consequently, to that part of the vein which contained the poison.

"Now it must be manifest, that the solution of the poison in the blood, under such circumstances, could only act upon the system through the vessels or nerves of the vein; for the direct entrance of the poisoned blood into the heart, &c. was prevented by the lower ligature, and we, consequently, ought to have found, in the case of venous absorption, the effect nearly the same as that which would have occurred from the introduction of the poison to any other part of the body, in which a capillary absorption, and, consequently a greater length of time was necessary to its operation; for it will be remembered, that circulation was no longer going on through the trunk of the jugular vein itself.

"It was found, however, on the contrary, that in the space of 108 seconds after the removal of the ligature the animal dropped in convulsions, as in the former case, and expired in three minutes and a quarter.

"The poison which was used in these two cases has never been known in dogs to produce a sensible effect upon the system, in cases of its insertion into superficial wounds of the body, in less than six minutes, and respiration usually has ceased in from a quarter of an hour to twenty-five minutes.

"Now, if we suppose that the poison of woorara produces its effect upon the system through the medium of the nerves, we can easily reconcile with that supposition the results of our two experiments: for we may attribute, in that case, the rapid operation of the poison in the last experiment, as compared with its effects upon a superficial wound of the body, to its contact with the acutely susceptible extremities of nerves distributed to the inner coat of the jugular vein itself; and we may also account for the extreme rapidity of its action in the first experiment, by its contact with the more extended and equally susceptible surfaces to which it must have been necessarily applied in the course of its direct circulation through the vena cava, the heart and arteries." 74.

As the intimate connexion between the nervous and vascular systems offer great difficulties to conclusions drawn from experiments made on either, our authors have endeavoured to obviate this impediment by attempting, as it were, to separate such connexion, and instituted experiments for the purpose.

"Two large bull-dogs, of equal size and strength, were held face to face upon a table, embracing each other; so that their breasts and necks were in contact, the animals being placed upon their sides. In this position, it will be seen that the right carotid of one dog, and the left of the other were uppermost, and that these vessels, when exposed by operation, might, while the animals were thus held together, be brought into contact. It was therefore our object to establish a connexion and circulation between these two arteries, viz. between the right carotid of one dog, and the left of the other.

"In this way, then, we established a circulation of blood from the heart of one dog, to the head of the other; and it was therefore reasonable to suppose, according to the theory of the supporters of venous absorption and cerebral contact, that the dog contributing blood to the other; would, after inoculation with a poison, be supplying his neighbour with poisoned blood, which reaching the substance of the brain, must necessarily produce the same effects in the one as in the other. This, however, was not the case; for, upon introducing the poison of *nux vomica* into the back of the animal, from whose carotid the blood was passing to the opposite vessel of the other dog, we found that although the usual violent effect was produced in the inoculated animal, and although that effect continued for the space of fourteen minutes, during which period a free circulation was carried on between them in the manner already mentioned, yet that not the slightest indications of the action of the poison upon the system could be observed in the other dog.

"Satisfied that the experiment had been continued long enough, the artery was then tied in the neck of the sound dog, the vessel was divided, and the sufferings of the other and expiring animal were terminated. On the following day the surviving dog continued free from all symptoms of poisoning.

"It can hardly be supposed in this case, that if the poison had been dissolved in the blood which circulated through the carotid of the poisoned dog, no portion of it would have reached the brain of the other, since it was repeatedly seen during the operation that a free current constantly passed through the vessels from one animal to the other; indeed if such had not been the case, it must be manifest that coagula would have formed in them, as well as in the brass tube by which they were connected. In the case, therefore, of sanguineous contamination and cerebral contact, we think it fair to infer that both animals ought to have been affected by the poison in nearly the same way, and at the same time, the opposite of which was proved to be the case.

"This experiment having satisfied us that the circulation of a poison through the brain was not the cause of its operation upon the body, we next proceeded to ascertain, by a nearly similar mode, whether in all cases the contamination of the blood in the veins, which supplied a poisoned part was necessary to the operation of the poison upon the system.

"Two large hounds were secured neck to neck, as in the former case, and the division and re-connexion of the jugular veins effected in a manner precisely similar to that already described in the case of the double circulation through the carotid, so that the venous blood from the head of one dog passed into the heart of the other. The animal contributing blood to the other was then inoculated on the side of the face with *nux vomica*, and in the usual time exhibited the usual symptoms: these continued without intermission during the space of seven minutes after the animal was first affected, the circulation being freely kept up through the artificially-connected jugulars: at the end of this period the circulation was beginning to become impeded by the formation of a small coagulum in the tube, and we therefore terminated the

experiment by destroying the poisoned animal, the other dog never having shown the slightest symptoms of being poisoned. Now, if in this case the poison had been taken by the veins in a sufficient quantity to affect the distant textures to which it was carried in its course through the circulation, we do not think it possible that either dog could have escaped; at all events, if either had escaped, it would have been the poisoned animal, whose veins were prevented carrying contaminated blood from the part through the system by their connection with those of another." 86.

A double circulation was effected by connecting the lower end of the divided carotid artery of one dog, with the upper end of the carotid of another, so that each animal supplied the brain of the other; and consequently the poisoned dog received from the unpoisoned animal a supply of blood equal in quantity to that with which he was parting. The form of the connexion is shewn by a plate, a rude idea of which may be conveyed by the letter X; the division of the arteries being above the superior angle, and the left side of the letter representing the carotid of one dog, the right that of the other. The experiment was as follows.

"Two large half-bred bull dogs, each weighing about forty pounds, were the animals selected for the operation. The carotid artery of each dog having been laid bare on one side, and separated from its connections with surrounding parts to the extent of three inches, temporary ligatures were applied above and below, and the arteries were divided between them, as in a former case; the brass tubes were then attached to the extremities of the vessels, and the necks of the two animals being held and closely bound together, the divided arteries were, without the least difficulty, re-connected, and the circulation reversed.

"One of the dogs was then inoculated on the back with a concentrated preparation of strychnine, which had been found upon other occasions to produce death in these animals in about three minutes and a half.

"In three minutes and a half the inoculated animal exhibited the usual tetanic symptoms which result from the action of this poison, and died in a little less than four minutes afterwards, viz. about seven minutes from the time at which the poison was inserted, during the whole of which time a free and mutual interchange of blood between the two was clearly indicated by the strong pulsation of the denuded vessels throughout their whole course.

"The arteries were next secured by ligature, and the living was separated from the dead animal; but neither during the operation, nor at any subsequent period,* did the survivor show the slightest symptom of the action of the poison upon the system.

"From these, then, and from many other similar experiments, which it would be needless to instance, we have been led to the conclusion that all poisons, and, perhaps, indeed, all agents influence the brain and general system, through an impression made upon the sentient extremities of the nerves, and not by absorption and direct application to the brain.

"So far as we are competent to judge, the conclusion is borne out by the experiments detailed in this Essay; but if those experiments be not satisfactory to our readers, we at least indulge the hope, that what has been advanced may lead to the discovery of more satisfactory and more conclusive evidence than has yet been adduced on this truly important question; a question, indeed, of the deepest interest, not as a mere matter of curiosity, but as involving the elucidation of many of the most prominent, and at present the most mysterious phenomena of a living body.

* "This animal was killed on the following day."

"If found to be correct, the principal for which I contend will not be limited to the operation of those noxious agents usually denominated poisons, but it may probably tend to the better understanding both of the causes and cure of diseases in general." 91.

Such are the experiments and conclusions of our authors in proof of their theory. We have once more to apologize for devoting so much space to the review of the Essay before us, but the vast importance of the subject, and impartial justice towards the individuals at issue, absolutely required it. We think the objections and arguments employed by Dr. Addison and Mr. Morgan against those who maintain opposite opinions, very powerful, and such as require answers, if any can be given; while their experiments are ingenious and deeply interesting, their deductions in general are natural and legitimate, and their theory on the whole as well, if not better supported, than any other which has been received. We think, however, it is by no means fully established, and that much more research is necessary to entitle it to adoption. It has been contended that a nerve deprived of circulation, as the sciatic in a former experiment, could not perform its functions; but were not the nerves of the isolated jugular veins in our authors' experiments in the same condition, and besides subjected to pressure for a considerable time? According to their own shewing, these nerves could not perform their functions, and it is not easy to admit, that nerves even remote in the same vessels, must not be affected by sympathy, and must not have their functions deranged by the injuries inflicted on the divided vein and surrounding parts during the experiments. The experiments upon the whole seem to us to disprove the doctrine of poisons acting by absorption. But though we think our authors have thrown much light on the action of poisons on the system, we regret that they have left the more important matter, the prevention of such action, as they found it.

III.

ON ANEURISM, AND ITS CURE BY A NEW OPERATION. Dedicated by Permission to the King. By *James Wardrop*, Surgeon to His Majesty. Octavo, pp. 117. Longman and Co. 1829.

IN contrasting the modern surgery of aneurism with the treatment of it a century ago, it is gratifying to observe how much science has done for the alleviation of a disease, which at an earlier period must have proved almost always fatal. Amputation no doubt afforded occasional relief, but in aneurisms of the great arteries, such as the axillary and external iliac, surgery afforded little or no resources; and if Nature did not in a few rare instances, manifest her extraordinary powers by a spontaneous cure, death alone terminated a miserable train of sufferings.

To English surgeons almost exclusively belongs the merit of having raised the pathology of the arterial system to its present improved condition, for notwithstanding the attempts made, particularly on the Continent, to deprive him of the honour, it was Hunter who first established practically those

principles which afterwards emboldened an Abernethy and a Cooper to apply ligatures upon the great arterial trunks, the integrity of which was one time deemed indispensable to the existence of the organs they supply.

In the present volume, after the preliminary observations in which the nature, formation, terminations, &c. of aneurism are detailed, Mr. Wardrop proceeds to give an historical view of its pathology and treatment by Hunter and his successors. It was generally supposed by them, and even some modern surgeons, that, in cases where a ligature is applied to an artery on the cardiac side of an aneurism, the circulation is completely suspended in the sac. Sir Everard Home, however, observed that this was not the fact; but, on the contrary, that the circulation, though interrupted, was still partially continued, and that this diminution in the force of the circulation, was alone sufficient to ensure, sooner or later, the coagulation and subsequently the consolidation of the blood in the sac. This fact, Mr. Wardrop states, "enables us to establish a new principle for operating in aneurisms so situated, as hitherto to have been considered beyond the reach of art, and to which the Hunterian principle of operating is totally inapplicable."

The operation here alluded to by Mr. Wardrop consists in applying the ligature to the artery on the *distal* instead of the *cardiac* side of the aneurismal tumour. The operation was suggested by Brasdor, Professor of Surgery in the Paris School, forty years ago, and was subsequently executed, but without success, by Deschamps, in a case of aneurism of the femoral artery close to Poupart's ligament. Finally, the operation was performed in this country by Sir A. Cooper, in a case of aneurism of the external iliac artery, with the same unfavourable result. It was then abandoned, and some of the arguments adduced against its repetition, were, that a ligature on the distal side of an aneurismal tumour would cause the blood to accumulate in the sac, and thereby risk its being mechanically burst by the force of the circulation; or that the attenuation of its walls by distention would excite inflammation of the sac which occasionally proves fatal.

Now Mr. Wardrop asserts, that the first objection is utterly groundless, and that the reverse is the fact.

"When the ligature (he observes) is placed on the distal side of the aneurism, we know from experience that there is immediately a diminution of the bulk of the tumour. The fluid blood can find in such a case a ready exit back from the sac into the trunk from whence it came, and thus again passes into the circulation, in place of, as in the other case, having to pass through capillaries into the veins, and as Nature immediately finds a new channel, there is no more blood impelled into the tumour afterwards."

Mr. Wardrop gives four cases in illustration of the practicability of the operation. In the first he operated himself under the most unfavourable circumstances, the patient being 75 years of age, and applied the ligature on the distal side of an aneurism of the carotid artery with perfect success. An account of three similar cases follows, the first two of which were not so successful, but the last, which was performed by Dr. Bush, is said to have been completely successful. Having thus detailed the particulars of these operations, the author proceeds to make an application of his principles to the cure of aneurism of the *arteria innominata*. In doing so he observes, that the process employed by Nature in the spontaneous cure is precisely analogous to that which takes place in the cure by the Hunterian operation.

for in both cases the coagulation of the blood proceeds from the circumference of the sac towards the centre. From this fact Mr. Wardrop was led to infer that "in cases of aneurism of the arteria innominata, the progress of the disease might be arrested by tying its two great branches, the carotid and subclavian; and although a certain portion of blood would still continue to pass along the innominata to those branches of the subclavian on the cardiac side of ligature, the ligature being necessarily placed on the subclavian artery after it emerges from between the scaleni muscles, yet such would be the diminution of the impetus of the blood in the sac, that the process of thickening of its parietes would not only go on, and thus its future increase be prevented, but even a permanent obliteration of the aneurismal cavity would be accomplished. This view is supported by the fact, that, in all cases of aneurism of any growth, we invariably find laminæ of coagula adhering to the internal surface of the sac. It is the process which Nature adopts to cure the disease, by gradually filling the sac with successive deposits, until at last the cavity be so completely plugged up as no longer to admit a column of blood to pass through it. Now if we can diminish the column of blood passing through the sac of an aneurism, we most powerfully assist Nature in her efforts to consolidate the contents; for, according as the blood admitted through the sac is lessened in quantity, the greater will be the disposition in the blood contained in it to coagulate. To this some have objected that the collateral branches enlarge so much, that the usual quantity of fluid circulates through the sac. Here, again, past observation has been deficient; for, as Mr. Wardrop observes, though the collateral vessels do enlarge most considerably, immediately after the application of the ligature, yet in a very short time they again diminish in volume, though not quite to their original diameters.

These views, founded on the pathology of the disease, and the observation of the phenomena of the spontaneous cure, emboldened the author to put his plan into execution in a well-marked case of aneurism of the arteria innominata. In this case the pulsation of the right carotid, with its several branches, was not perceptible, so that its obliteration was presumed. A ligature was therefore applied to the right subclavian, and though many untoward derangements of general health retarded its progress, the cure is said to be complete; for, at the last report, the only appreciable remains of the aneurismal tumour, which originally was perceptible at the root of the neck, was an unnatural feeling of hardness above the clavicle. In this case, Nature had considerably advanced in the spontaneous cure by the obliteration of the canal of the carotid, so that art was only required to assist by obliterating that of the subclavian. In those instances, however, of aneurism of the arteria innominata, where both the carotid and subclavian are quite pervious, Mr. Wardrop advises the application of the ligature to the carotid artery first, and to the subclavian at a subsequent period. His view on this subject seems to have been attended with a more favourable result than could possibly have been anticipated, for, in a case of aneurism of the arteria innominata, lately operated on by Mr. Evans, of Belper in Derbyshire, the ligature of the carotid was alone sufficient for the cure, the subclavian having become *spontaneously* obliterated eight or ten days after the operation.

IV.

1. L'AGENT IMMEDIATE DU MOUVEMENT VITAL, DEVOILE DANS SA NATURE, ET DANS SON MODE D'ACTION CHEZ LES VEGETAUX ET LES ANIMAUX. Par *M. Dutrochet*. Paris, 1826.
2. NOUVELLES RECHERCHES SUR L'ENDOSMOSE ET L'EXOSMOSE, SUIVIES DE L'APPLICATION EXPERIMENTALE DE CES ACTIONS PHYSIQUES A LA SOLUTION DU PROBLEME DE L'IRRITABILITE VEGETALE, &c. Par *M. Dutrochet*. Paris, 1828.

THE hackneyed apothegm, *in extremis ad extrema*, has a very extensive application ; for, whether we speak with allusion to the ten thousand fancies of female dress and the ten thousand forms of female fancy, or the yearly revolutions which occur in politics and the daily recantations which obtain in science, our *dictum sapientiæ* is equally appropriate. Were it possible to confine inconsistency to the wardrobe or the toilet, to the promenade or the drawing room, the fop might be tolerated to suit his coat to his own taste, and to wear it either off or on, as fashion dictated ; but when we see sciences, which should be constructed upon certain rules, and studied under certain principles, subjected to the caprice of every taste, and tortured in every accommodating form to chime in with the eccentricities of monomania, silence is generally impossible, and yet remonstrance is frequently of little use. Pathology is the theme of one age, physiology is the hobby of another ; one book makes way for hundreds, and as soon as a President or Professor writes upon a certain point, popularity is forthwith stamped upon the subject, interest flows in another channel, the cue must be grasped by the other end, the child must be propitiated with another rattle, and a host of satellites may shortly be expected.

These *literary trade-winds*, it cannot be denied, may be of some use, but it is questionable, whether the plethora, which they induce in one market should be considered a sufficient counterbalance for the poverty they occasion in another, or whether the demand, which is thus made upon a popular commodity, may not hold out encouragement for adulteration, as well as for excess.

While it has been both our principle and practice to make every subject introduced into our pages bear as directly as possible upon the therapeutical medicine, the *ancillary* sciences have not been, and ought not to be, overlooked ; and in this our pathological day, it will be refreshing, both for our readers and ourselves, to leave, for a time, the lazar house and the dissecting table, and enter with the physiologist into a department of our profession, which seldom fails to make ample compensation for any lack of prac-

tical tendency it may be taxed with, in the delight and improvement it affords. Dutrochet has been for some time known to the literary world as a zealous and successful naturalist. His anatomical and physiological researches into both the animal and vegetable kingdoms have cast very considerable light upon much of their minute structure and many of their obscure functions. But it is not our design, at present, to review his botanical labours *en masse*; such a task, to be properly performed, would require us to embark into the subject of vegetable anatomy to an extent equally incompatible with our space and time. Our present article, shall, therefore, be confined to the investigation of two points of great interest, which the author proposes in the form of queries:—*What is the course of the sap in vegetables, and what are the powers by which it circulates?* And, by following him through his investigations on these questions, we shall have an opportunity of extracting much interesting matter, convinced, as we are, that the novelty of many of the principles which are developed is only equalled by the importance of the conclusions to which they lead, and by the variety of subjects to whose illustration they may be applied.

In the first of the volumes cited at the head of this review, Dutrochet opens his investigation of the first question—*what is the course of the sap in vegetables?* by observing, that it is generally admitted that the sap both ascends from the roots and descends from the leaves, and that, while its upward movement is too obvious to admit of doubt, the evidence by which its descent is ascertained consists of facts which can neither be clearly explained nor understood, until the route which it pursues in its journey to the leaves has been previously examined. By cutting a vine-branch across in the beginning of Spring, a watery fluid will be seen to exude from the extremities of small vessels, which are called by Decandolle lymphatic tubes, by Mirbel, false tracheæ, and, by our author, corpusculiferous tubes. These vessels run in straight lines, never anastomose, and have no valves. In young plants they are interiorly divided by transverse laminae into elongated cells, which have no direct communication with each other; but when vegetation advances, their organization changes, these partitions are removed, leaving nothing as a vestige of their existence but small circular swellings on the interior of the vessel, and what was once a concatenation of cells becomes a continuous tube. In 1733, it was asserted by Sarrahat, that no sap ascended in either the bark or pith; Bonnet entertained the same idea, and experiments, variously modified, have convinced Dutrochet that Sarrahat and Bonnet were correct. But while lymphatic tubes are confined to the wood, and lymphatic sap is supposed to ascend in this proportion of the plant exclusively, some have considered the alburnum the principal medium of its transmission, while others, as Coulon, have ascribed this office to the duramen. There are many facts, however, to shew that the sap ascends both by the duramen and alburnum, and the origin of a contrary sentiment may, probably, be traced to the difficulty of explaining, in accordance with our ordinary theories of vegetable circulation, the ascent of a fluid in vessels completely lignified, whose walls can scarcely be supposed to possess either contractility or irritability. Dutrochet attaches to these lymphatic tubes the function of circulating all the lymphatic or ascending sap, and, in opposition to much authority, maintains that the tracheæ performs a very different office. These vessels are met with only in the medullary sheath of dicotyledinous plants, so that, in monocotyledinous vegetables, the lymphatic tubes must be the unaided means whereby the ascent of the sap can be effected; and, when we consider that the tracheal vessels have not been discovered in the route of even dicotyledinous plants, it is natural to infer that their functions and those of the lymphatic tubes, which are as copious in the roots as in the stem, can have little in common. It is true that, on immersing the inferior end of a cut twig into a coloured liquid, both tracheal and lymphatic vessels will be found to take up the fluid; but there is this material difference between their actions, while, in the latter, the fluid will rise to the top of the plant, or, in other words, to the extremity of the vessels in which it is contained, it will ascend no higher than its own surface in the former. This experiment is tolerably decisive of the point, that some other functions than that of raising the sap pertain to the tracheæ; what this function is has been much agitated, and, if at all illustrated, must be admitted to remain as yet obscure. Some naturalists will have it, that the ancient doctrine

has been undeservedly rejected, and that there are many reasons for believing they contain air; others say they assist in circulating the sap; and some maintain that they are very analogous to the tracheæ of insects, and that they are the media by which an *influence vivifiante* received from the leaves is carried from the interior of the plant.

The leaves, the flowers, and the fruit are the parts to which the ascending sap ultimately tends. In these organs much of this fluid is evaporated and given to the atmosphere, while some of it is converted into a nutritious liquid, suited for the support of vegetable life. That it is mainly in the leaves that this conversion takes place is evident from many facts, and from none more clearly than this, that whenever a tree is deprived of its foliage, growth ceases, vegetation gradually declines, and its fruit soon falls unripened to the ground. As soon, then, as this assimilating process has been perfected, and the crude lymph which was extracted by the roots from the soil, has acquired those properties which adapt it for the discharge of its specific functions, the circulation assumes an opposite direction, and the elaborate sap commences its descent. The truth of this statement is easily established. By cutting out a circular piece of bark from the branch of a tree, it will be found that the superior cut surface alone, which is nearest to the leaves, will grow. This circumstance has given origin to the doctrine, that the elaborated sap descends by the bark only; others, as Knight, imagine that it can circulate through the alburnum also, when any impediment, by which the life of the plant becomes endangered, is given to its progress along the bark; and Dutrochet concludes that, while the ligneous tissue forms the easiest channel for its passage, it may be transmitted by the bark, but that it does not owe its circulation to an inverted action of the lymphatic tubes, as Knight supposes, but to the *closters* which abound in both the bark and wood.

"The elaborated sap," he observes, "in reality descends in herbaceous plants both by their cortical and central systems, and this is one reason why we may expect it to follow the same course in ligneous vegetables. In these its descent is principally conducted in the young, and as it were *herbaceous* tissue of the new bark and new alburnum, but it is probable that the entire alburnum, as well as some of the outer layers of the duramen, contribute in some degree to its transmission. The successive transformation of laminae or alburnum into duramen seems to prove, that the oldest alburnum, or youngest duramen, still receives the elaborated sap, since this conversion of alburnum into duramen is the result of a chemical action which depends upon nutrition, an action so slow in its progress as to require several years for its completion. In my *Recherch. sur la Struct. intim. des Anim. et des Veget.* I have shown that this change consists in the hardening and coloration of a substance contained in the closters, which is formed from the elaborated sap, or is in fact the sap itself, rendered concrete by evaporation. I am, therefore, induced to regard these closters, which abound in the wood and bark, as the organs by which the elaborated sap is transmitted. This transmission is effected, as we shall hereafter see, by a particular action of the closters, which have no direct communication among themselves, but exert a suction power on each other, which draws this fluid through their walls. Finally, I have ascertained that the course of the elaborated sap is not always downward, since it ascends into the peduncles of the fruit, is the cause of their development, and likewise forms the shoots and buds."

It is well known, especially by bark-peelers, that in dicotyledinous plants, during the months of Spring and August, a quantity of fluid is effused between the wood and bark; but it has been hitherto uncertain whether it issues from the lymphatic tubes, is elaborated sap, or circulates through a channel and in a direction of its own. Dutrochet's reasoning on this difficulty is highly ingenious, and probably correct. He observes that, since this effusion occurs while the lymphatic sap is ascending in the greatest quantity, it might be natural to look for its origin to the lymphatic tubes; but, independent of the fact that this effusion has been witnessed during Winter, while no

lymphatic sap was in motion, there were several circumstances unfavourable to this view. The sap thus effused seems to exude from the ligneous substance of the plant in an horizontal direction, and no horizontal machinery is known, through which this passage could be effected, but the *medullary radii* which exclusively belong to dicotyledinous plants, and traverse the ligneous tissue from the medullary sheath to the exterior surface of the alburnum, over which this fluid is effused. But it is in dicotyledinous plants alone that this intracortico-ligneous effusion obtains, and, when to this fact we add another, that dicotyledinous plants alone increase diametrically by the successive deposition of concentric layers, it is very likely that the medullary radii are organs destined for this transverse circulation, and that this subcortical effusion is destined to form these concentric layers.

It has been shown by Mr. Knight, that the first lymphatic sap, which ascends in Spring, mixes with some of the elaborated sap, which had been formed at the close of the previous season and deposited within the closters during Winter. By wounding a *Sycamore* tree on a part level with the surface of the earth, sap was obtained which had no particular flavour, and whose specific gravity amounted to 1.004; at the height of seven feet from the ground its weight was increased to 1.008; and, when drawn at a remove of 14 feet from the soil, it weighed 1.012, and had become decidedly sweet. This intermixture is supposed to qualify the lymphatic sap to form buds; a different theory of their formation is given by the author.

The cellular tissue, constituting the central medulla of plants, appears to Dutrochet to have no connexion with the ascent of the sap, for, by destroying every part of the substance of a branch of the *Rosa Canina*, except the pith, so that no communication could exist between its base and summit but through the central medulla, he found the superior portion of the branch to become dry, to wither and die. Sarrahat and Bonnet likewise observed, that when a cut twig was immersed in coloured liquid, none of it was taken up into the pith. Yet, it is certain that the cellular tissue of the medulla in young branches is often full of sap, and Mirbel has endeavoured to demonstrate the existence of pores in the walls of these cells, through which it may pass from one into another. Where the source, or what the use of this central fluid is, has been scarcely more than conjectured. Dupetit-Thaurs regarded the pith as the reservoir of a nutritious substance designed for the development of the buds, and into this view Dutrochet partly enters. If a branch of vine, of last year's growth, be examined during Summer while it is covered with buds, the pith will be found of a reddish colour and apparently dead, except at the knots which are opposite the buds; and it is certain that it is dry and withered in old branches which wear no buds; while it is spongy and succulent in the young and vegetative. But in addition to this office, it is maintained by the author to discharge a prior and more important function. In a work, to which we have already had occasion to refer,* he has shown that the walls of the cells which compose the central pith are covered with globular bodies, which he regards as nervous organs, or *des organes spécialement dépositaires ou producteurs de la force particulière aux êtres vivans, et que l'on nomme force vitale*. These organs vary much in different plants both in size and number, as well as in the same plants at different periods of growth; and the author has observed that the size of the pith bears a tolerably constant and close proportion to the number of these nervous globules, diminishing with their decrease and augmenting with their multiplication. The central system of young branches is almost entirely medulla, enclosed within a medullary sheath. Now, says the author, if we believe that it is during this period of growth that vegetable life is the most active, it is undeniable that this increased activity must depend upon the organs which enter into the composition of the new texture, and these organs are

* *Recherch. Anatom. et Physiolog. sur la Struct. &c.*

the globular corpuscles, which are situated upon the walls of the medullary cells. And if in animals the nervous system be the special seat of life, may we not hold, as analogous to this vital system, those parts of vegetables on which exclusively depends the activity of vital movement, as manifested in the rapidity of vegetable growth? Thus, then, it would appear that the pith, which is a stranger to the ascending sap, receives into its cells such as is elaborated, for the formation of buds and the development of those organs, which are to perform in the economy of vegetable life the functions of nerves.

From these facts and observations we may infer, that the lymphatic tubes are properly the absorbents, or veins of the vegetable system; that the fluid they convey is not destined for vital functions; that the elaborated sap is the vegetable equivalent for arterialized blood in animals; that the closters whether in the wood or bark, are the channel through which this nutritious fluid filters; that while the crude sap generally ascends and the elaborated sap descends, their movements may be, and are frequently inverted; and that while, by the straightness of the lymphatic tubes, together with their destitution both as to branches and valves, it seems the object of Nature to save time and procure velocity, by the ovoid form of the closters, their want of direct communication, and the dependence of all transmission through them on a principal somewhat similar to absorption, it is doubtless that an equally important object is contemplated in the peculiarities of such a mechanism. What this object is it shall be our business to inquire.

This very condensed sketch of the course of the sap in *dicotyledinous* plants is sufficient to prove, that strict analogy will not permit us to dignify it with the term *circulation*. (In *monocotyledinous* plants, its course has not been so fully examined, and is much more imperfectly understood. Their cortical and central systems are exceedingly confused, and many other anatomical difficulties are met with in their investigation, which are not to be encountered in the study of the preceding class; it is highly probable, however, from their general resemblances in lymphatic tubes, closters, tracheæ, and pith, that the same organs have the same uses in both.) The leaves we have seen to be analogous to lungs in animals, the lymphatic tubes to veins, the closters to arteries, the lymph to venous and the elaborated sap to arterial blood; but there is nothing like a central organ through which all the circulating fluid is conveyed, nothing like a continuous series of vessels, nor any thing like a continuous current. The lymphatic sap retrogrades as well as ascends; the elaborated sap returns towards the leaves as well as moves towards the roots; the closters are not continuous tubes, but chains of shut sacs; and the sap often seems to percolate through the general texture of the plant without vascular restraint. While, therefore, in several points strict analogy would be injured by ascribing to the vegetable system the exactitude, harmony and completeness of an unbroken circulation, there are as many features of resemblance between the course of the sap in vegetables and that of the blood in animals, as may entitle the functions carried on by them in both to be considered equivalent, and the machinery employed for their performance tolerable counterparts.

How even this imperfect circulation is conducted, it is not easy to discover; whether by the innate power of the tubes themselves, by corpuscular attraction, by the suction power of the leaves, or any propulsive property in the roots, has been as yet uncertain and unsettled. The author's labours in this department we esteem especially excellent; the results at which he has arrived particularly interesting, and should future investigation verify the principles and confirm the conclusions which he has announced, we shall only be conferring that honour upon merit to which justice lays claim, when Dutrochet shall be enumerated among our most original and successful physiologists. Malpighi ascribed the ascent of the sap to its alternate expansion and dilatation by means of the surrounding atmosphere. Sarrahat explained it upon the principle of the air, which he considered to

be contained in the pith and tracheæ, becoming alternately denser and rarer, and thus producing a corresponding ebb and flow in the contents of the sap vessels. Darwin and Hooper accounted for all by irritability. Knight, by the change of volume produced by the action of temperature on the silver grain, which expands during day and collapses during night; and many other theories have been at different times promulgated, into which it would, we fear, be more curious than instructive to enter. The only doctrines which seem to merit a more enlarged notice, before we take up the peculiar views of the author, are three; *the suction power of the leaves, contractility, and capillarity*; and as our main object in examining even these is to shew that neither one nor all can explain the phenomena of vegetable circulation, and that, therefore, some other agent must exist with which we have been hitherto unacquainted, we shall adhere closely to this object, and bear exclusively upon such circumstances as tend to establish it.

When the cut end of a living twig is plunged into water, it is well known that some of the water is absorbed, and that the plant will not only continue fresh, but grow. The quantity of water absorbed by the lower end is, in general, proportioned to the quantity evaporated by the leaves, and the activity, both of the absorption and evaporation, is influenced by the physical state of the surrounding atmosphere. When it is dry and warm, they are increased; when moist and cold, they are diminished; but, whether dry or moist, warm or cold, a very remarkable proportion is maintained between the *outgo* and *income* of the system. Now it is not unreasonable to infer that, since one of these processes, evaporation, is carried on by the leaves, the more abundant the foliage is, the greater will be the quantity of water evaporated; and since both processes, evaporation and absorption, act and re-act so intimately on each other, that one can neither increase nor diminish, without being accompanied with a corresponding variation in the other, it may be inferred that the leaves exert a tolerable influence upon the motion of the sap. These inferences have been already drawn by Hales, and they are both strongly countenanced by the fact, that when the leaves are artificially removed during Summer, or naturally fall in Autumn, vegetation and growth are instantly arrested. As this subject, however, shall come before us hereafter, suffice it, at present, to observe that while we admit the force and application of these facts, and are disposed to attach much importance to the suction-power of the leaves in the circulation of the sap, this power may be found to spring from another and more general agent, without which it would be of small avail; more especially when we know that, in Spring, absorption is commenced and conducted independently of its influence, while the leaves are yet unfolded, and even the buds unformed.

Without advancing any facts to prove that plants, like animals, are endowed with irritability, it may be sufficient to remark, that the phenomena resulting from this principle have led many to maintain that vegetables possess contractile power, and that their fluids are circulated by an agency in every respect similar to that employed in the circulation of the blood. If the stem of a lettuce be cut across, its *suc propre* will be seen to exude from both surfaces—from that belonging to the part which is next the root, and that which is nearest to the leaves; and, as no appreciable difference can be discovered between the velocities with which it pours out of both, it might appear to some that neither the roots nor the leaves are concerned in its motion, since the vessels which open on one surface are attached to no root, and those exposed by the other to no foliage. By what power, therefore, do some ask, can the fluid exude? The following experiment of Van-Marum has been made to answer this query, by ascribing its escape to contractility. This physician having passed a strong charge of electricity through a stalk of *Euphorbium*, found that the plant poured out no more fluid when cut across, than it would have done had it been simply compressed. Now, reasons Van-Marum, since we know that strong electrical shocks destroy the irritability of animal fibre, we may conclude that they are equally injurious to that of vegetable

tissue, and that the reason why the preceding experiment was followed by such a result, is only afforded by such an explanation. The observation of Brugmans and Coulon, had it been verified, would, however, have had a stronger influence with us; that by means of alum, sulphate of iron, and similar astringents, they could wholly stop vegetable circulation; but Van-Marum, Linck, and Tréviranus, have called this statement in question, and Dutrochet adds to the weight of their contradiction that of his own experience.

"Yet," says our author, "constrained by the necessity of admitting some cause to account for the pressure which fluids in the capillary organs of vegetables evidently sustain, I regarded, as highly probable, the opinion which accounted for the ascent of the sap by vascular contraction, until I was undeceived by the following reflexions. We know that the fig, *Ficus Carica*, contains a large quantity of milky juice in both the cortical and central systems of its young branches. So long as the woody tissue of these branches is in an *herbaceous* state, it is possible that the walls of its vessels may contract upon their contents; but, when this tissue hardens and becomes perfect wood, every idea of contraction, on the part of these vessels, must be abandoned. Now, if we examine the young branches of the fig, towards the end of October, we find the ligneous tissue of their central system indurated to such a degree, that it breaks with noise and cuts with difficulty. The assemblage of tubes and closters, of which it is composed, is so solid, that a quarter of an hour's boiling in nitric acid is necessary to destroy it, yet we see fluids pour out of the rigid tubes of this woody tissue in great plenty, when it is cut or broken transversely. Here I repeat it, it is impossible to admit vascular contractility; and this conclusive fact proves that there is another cause, whatever it may be, to which we must ascribe the pressure to which fluids, contained within the organic cavities of vegetables, experience."

By a very simple experiment, it was first demonstrated by Hales, and afterwards by Mirbel and Chevreul, that the sap in a small vine branch, retaining its connection with the stem and root, ascends with a momentum sufficient to raise a column of mercury 38 inches high; but if this branch be separated from the plant while the sap is rising, and if its lower extremity be plunged into water, it will be found that the greater part of the ascending momentum is lost, and that, although water will continue to rise in the sap vessels, it will not overflow or reach their extremities. From this single fact it is tolerably certain, that mere capillary power is of itself an insufficient agent, and that the ascent of the sap in plants is a complicated phenomenon, depending on something more active than a *mechanical law*. Capillarity is a power wholly independent of life, the result of certain mechanical principles, and, whether the substance within which it acts be alive, dead, or inanimate, the laws of its operation are unaffected, the degree and duration of its influence the same. How the succeeding phenomena will tally with these observations, the reader will be sufficient to ascertain.

A twig of the *Mercurialis Annua* was separated from the plant, and allowed to wither, until 0.15 of its weight had been lost by evaporation, when it was placed in a vessel full of water, which had been accurately weighed. In a temperature of 13° R. the twig was found to absorb 20½ grains during each of the first four hours, and to evaporate, in the same period, 8½ grains; and although it had resumed its turgid state, its former weight had not been regained. During the next four hours, the temperature and hygrometrical state of the atmosphere being the same, 9½ grains were absorbed, and 9 grains evaporated by the hour; during the night, 7½ grains were absorbed, and 7 grains evaporated by the hour; on the next day, and for some time after, the plant, which was now quite restored to its former freshness, continued to absorb and evaporate between 7 and 8 grains every hour, with this marked and constant variation—that, during night, the absorption was greater than the evaporation, and, during day, the evaporation exceeded the absorption.

Another branch from the same plant was withered, until 0.36 of its primitive weight had been lost, when it was placed in a vessel with water, under circumstances precisely

similar to those followed in the preceding case. During the first 24 hours it regained only 12 grs. of its weight, or, in other words, 12 grs. were the excess of its absorption over its evaporation; on the following day it absorbed one grain and a half only every hour, and, as it lost by evaporation more than it took up, it soon began to dry, and in a few days, except two of its lower branches, died. In this experiment it appears that the vitality of the plant was too much injured during the process of desiccation to conduct an unimpaired circulation, and that while, perhaps, by capillarity death was delayed for a period, the motion of the sap was not so perfectly sustained as to uphold life. But the succeeding experiment renders it very questionable, whether even in this last case, the protraction of life depended on the action of capillarity.

Two other branches of a *Mercurialis* were taken; one was made to lose by evaporation 0.61 of its weight, and the other 0.72. The first had many of its leaves in a state of *souplesse*, but those of the second were more dried, and even crepitated upon handling. These branches were completely immersed in water, and some twigs of the first branch revived, became fresh and turgid; but no appearances of vitality returned to the other. They were then taken out of the vessel in which they were immersed, and had their extremities placed in a foot of water. The twigs of the first branch, which had revived during the previous immersion, continued fresh and active, but none of the others were recovered; and the second plant continued dead and flaccid.

How can such experiments, which were variously modified yet produced the same results, be explained by capillary principle? Why should a mere mechanical and dead power be so controlled by vitality, as even to cease to act upon the extinction of life, or, at least, to act so efficiently as to prevent death? and why should the physical conditions of the atmosphere so materially modify its results? It has been proved by Hales that light also has much influence on the functional actions of vegetables; that plants transpire much more in the light than in the shade, and we have already seen that the ratio, which obtains between evaporation and absorption during day, is reversed during night. The application of this last phenomena to the present point might be disputed, were it produced by the direct rays of the sun only, which, by acting on the leaves, would increase evaporation; but it is equally occasioned by diffuse light, which is not supposed to exert any such influence over these respiratory organs. Many other arguments might be added; but, as they will suggest themselves to the reader as we advance in our explanation of the laws of a new principle, which it will be now our business to unfold, we shall not dwell upon this point any longer.

The conclusion to be drawn from all these observations unquestionably is, that neither the suction-power of the leaves, nor the contractility nor capillarity of the sap vessels, can explain all the phenomena of vegetable circulation, and that, while something may be done by each and more by all of them, something shall still remain undone, which we have hitherto had no known agent to perform. To fill up this *hiatus* in our physiology of this function has Dutrochet come forward, and we shall now endeavour, in the first place, to review the evidence on which the existence and agency of this principle are founded, to develop its nature and explain its laws, and then conclude by applying it to the illustration of such phenomena, both vegetable and animal, as are inexplicable by any or all of the preceding doctrines, and seem to come within the limits of its influence.

In consequence of appearances, which were observed during the vegetation of some aquatic plants and the copulation of snails, the author was led to the conclusion that water, by accumulating within small organic cavities, endows these cavities with a propelling power, whereby their contents are expelled; and that such accumulation always occurs in such cavities, when their contents are of a denser consistence than water. "Such, then," says the author, "are the two facts upon the observation of which I have established the existence of a new physico-organic action, which possesses the two-fold property

of rendering turgid small organic cavities, and of expelling the fluids which such cavities contain. A double effect which has its origin in a single cause, in an unceasing accumulation, *et æcæ excess*, of water within these organs. As this new physico-organic principle requires to be designated by a new name, I shall distinguish by the term *Endosmose** the agent, in virtue of which small hollow organs are filled with a fluid, which seems to enter their cavities with force. The existence of this vital principle, being thus established by the observation of spontaneous operations in organic nature we shall now endeavour to confirm by experiment."

From witnessing the turgidity acquired by the spermatic sacs of the snail, the author imagined that an analogous result might be obtained by introducing into the intestines of small animals before immersing them in water, an organic fluid of greater density than the liquid which surrounded it. With this view the cæcum of a pullet, after having been thoroughly cleansed by injections of pure water, was half filled with milk, tied at both ends, and plunged into a vessel containing rain water, whose temperature was between 18° and 21° R. Before immersion it weighed 196 grains, in 24 hours afterwards 269 grains, and at the lapse of 36 hours from the commencement of the experiment, the water having been renewed night and morning, its weight amounted to 313 grains, or 117 grains of water had been absorbed into the interior of the gut, which had become in consequence much distended. From this time the intestine grew lighter, its turgidity was lost, and in 36 hours it weighed only 259 grains. The ligatures were then removed, and on opening the gut the milk was found curdled and putrid.

The same portion was again well cleansed, half filled with fresh milk, and replaced in water. After 24 hours' immersion 21 grains were gained, but from this period absorption ceased, and in 24 hours after, on removing the ligature, the milk was found in a similar condition as at the close of the preceding experiment.

A second portion of cæcum, which was half filled with rain water, weighed 64 grains, and was then immersed in water at the temperature of 24° R. At the close of 36 hours it weighed 121 grains, having absorbed 57; but from this period it began to empty, and after three hours the enclosed water was found putrid. The gut was now emptied, cleansed, again charged with fresh water, and replaced in water for 36 hours. Some absorption occurred; but at the expiration of this time the water was found putrid. The weight of the cæcum before immersion was 63 grains, and during it seven only had been acquired. After again removing the putrid water and purifying the gut, as much milk was poured into it as made it weigh 66 grains, when it was again immersed in water. In 36 hours 68 grains were added to the original weight, but immediately after decrease commenced, when the gut was opened, and the milk found curdled. The pieces of gut used in all these experiments had become somewhat putrid.

A third portion of cæcum belonging to a pullet was well washed, then carefully emptied, tied up at both ends, and plunged into water. Before immersion it weighed 27 grains, and, after it had remained 12 hours steeping, 13 grains of water were found in its interior.

A fourth piece of a similar gut was half filled with albumen and plunged into rain water, of the temperature 18°—21° R. Eight hours and a half afterwards the cæcum, which at first weighed 58 grains, had become weightier by 72 grains, and was very turgid. This turgidity continued for three days, and the gut, which was nearly as full as it could be made, gained three grains only during all that time. On the beginning of the fourth day it began to lose weight, and on the fifth it was lighter by 22 grains. The gut was then untied, emptied of a putrid, flocculent fluid, into which the albumen had degenerated, was well washed, and again charged with the same kind of

* Derived from two Greek words—*ἔνδοσ*, within, and *σμός*, impulse.

substance. When the gut was immersed it weighed 60 grains, eight hours afterwards 92, twelve hours afterwards it was five grains lighter, and this decrease increased during two days, until the total loss amounted to 20 grains, when it was opened, the putrid albumen removed, and a solution of gum substituted. In this state the cæcum weighed 48 grains, and five hours afterwards 124 grains, when it became turgid. Its turgidity continued for two days, on the third, loss of weight was manifested, and on the fourth, it was *minus* 48 grains; when the cæcum was opened, its contents were found putrid, and the gut itself decomposing.

These experiments we adduce as a *fac simile* merely of many very interesting and variously modified trials, which it would be unnecessary to occupy our time and pages by multiplying, as all the results are strikingly similar, and as the above, we presume, will be sufficient to show that by the agency of a certain principle, with whose laws we are not as yet acquainted, fluids in a healthy state can be drawn through an organic membrane with surprising velocity, and that although, as we shall see more largely hereafter, the presence of a denser fluid within gives an increased velocity to the entrance of a rarer fluid without, the endosmotic principle can act when both fluids possess equal density, and even when there is no enclosed fluid of any sort. Now we believe that the results of these experiments can receive no explanation from capillary power, for capillarity acts upon putrid as well as upon sound fluids, through rotten as well as through sound membranes, uninfluenced by the density of the former, or the soundness of the latter. Neither can they be accounted for by the structure of the membranes employed, since experiments were made with an inverted cæcum, and with one deprived of its mucous coat, without the occurrence of any appreciable variation. Nor, lastly, can any affinity existing between the rarer and denser fluids, solve the problem, because, by a subsequent experiment in a graduated glass tube, into the lower half of which was poured an albuminous solution, and into the upper half, pure water, so that these two liquids were placed in actual contact, without being allowed to intermix, no absorption of the one by the other was found to have occurred after the lapse of 48 hours, as the line of demarcation between the two fluids stood at the same degree, by which it was noted before the experiment commenced.

It is remarkable in the above experiments, that so soon as the contents of the gut began to putrify, not only did the outer fluid cease to enter, but the inner fluid began to exude. This *sortie* was at first ascribed by the author to the pressure of the walls of the gut upon its contents, after the cessation of the endosmose; but the rapidity of this exudation was frequently so marked, that it was ultimately suspected to be the result of an action opposite in direction to endosmose, but similar in cause, and the succeeding experiment confirmed this suspicion. Three-fourths of the cæcum of a pullet were filled with water, which held in solution one-fiftieth of its weight of gum arabic, after which it was tied at both ends, and plunged into pure water. At the end of an hour it had gained six grains, when the pure water, in which it was immersed, was changed for water holding in solution one-tenth of its weight of gum arabic. At the expiration of an hour it had lost 30 grains, and after the lapse of two hours the gut had become nearly empty. It is evident, therefore, that whether the denser fluid be interior or exterior, it always forms the centre of attraction to the rarer fluid, and that, while the direction of the current thus formed may be reversed, the moving principle is the same in both. The author has, however, distinguished by a different name this inverted action, and while inward attraction is called *Endosmose*, outward impulse is called *Exosmose*.* By virtue of this principle he conceives the fluids employed in the foregoing experiments not only ceased to excite endosmose, so soon as putrefaction

* Derived from ἐξ, out, and σμωσις, impulse.

began, but commenced an outward movement. This explanation, however, is scarcely satisfactory, for it would require to be shown, that the putrid solutions of the albumen and the gum had become rarer than the external fluid, before exosmose can furnish any explanation. Might not the chemical alterations which putrefaction had established modify the functions of these organs? This is rendered more than probable by the succeeding results. Rain water, with a very small admixture of Sal Ammoniac, was enclosed within the cæcum of a pullet, and immersed in pure water. About an hour afterwards, it was weighed, and 20 grains were found to have been absorbed. This experiment was modified by reversing the situation of the fluids, and the effect was reversed, or weight was lost. Now, since a solution of Sal Ammoniac is rarer than pure water, when such solution was made the included fluid, exosmose should have been excited, and when the surrounding fluid, endosmose; yet the very contrary occurred, showing clearly that it is not difference of density alone which excites these powers, but that they also result from difference in chemical constitution; and it is very remarkable that alkalies and acids have exactly opposite influences upon these physico-organic principles, the former producing endosmose, the latter exosmose. One exception to this general rule is met with in Sulphuric Acid, and this curious fact is another proof, that greater density is the included fluid in neither the *sine qua non* of endosmose, nor, in all instances, sufficient to produce it. To prove this, a very simple instrument, which Dutrochet calls an *Endosmometer*, was used. This instrument is nothing more than a glass tube having a small bore, to one end of which is tied a thin piece of membrane, as bladder, and to which is attached a graduated scale. To prevent this membrane, by becoming flaccid through maceration, from giving rise to any error in the results, a cribriform plate or floor is fixed underneath it, upon which the membrane may rest. Now into this instrument some sulphuric acid was poured, and then the end of the endosmometer was immersed in water. Immediately the acid began to fall into the tube, showing that exosmose was operating, and that, in place of a denser fluid producing absorption, exudation was occasioned. This exudation seems, however, to arise from gravity, and not from exosmose, for if some sulphuric acid be poured into a solution of gum, which is highly productive of endosmose, the endosmose ceases, but no exosmose is produced.

This fact has formed the groundwork of a division of fluids, with reference to endosmose, into *active* and *inactive*. Among the *active*, are animal and vegetable liquids in a sound state, as solutions of gelatine, albumen, and extractive, solutions of gums and sugar, and all emulsions; these Dutrochet designates *organic liquids*; all saline and alkaline solutions, alcohol, and acids, with the exception of the sulphuric; these are called *chemical liquids*. By all of these, endosmose is energetically elicited, (under the term endosmose, we here include exosmose, of course,) but more especially by the *organic* class, for the *chemicals* are endowed with the singular peculiarity of ultimately destroying the action which they at first establish. Thus, if some alcohol be added to a solution of sugar, the endosmotic power will be at first increased, but in the course of some hours, entirely destroyed. Among the *inactive* fluids, the most remarkable are putrid liquids and sulphuric acid. A very ingenious suite of experiments have rendered it tolerably certain, that the endosmotic incapacity of this class seems to arise from the presence of sulphuretted hydrogen. Having poured into the reservoir of the endosmometer some water, charged with 0.05 of its weight of gum, and having plunged it into water containing some hydrosulphuret of ammonia in solution, endosmose manifested itself for four hours, after which it ceased, and the fluid descended in the tube. The instrument was then emptied, and being well washed, was again charged with a similar solution of gum, and again immersed in hydrosulphuretted water, but no endosmose was produced, and the liquid sunk gradually in the tube. Some feculent matter was now taken from the large intestines of a pullet, was mixed with its own weight of water, and then introduced into the reservoir which was plunged into water. A slight ascent was at first perceptible, but it did not continue long, and, although the densities of the included and surrounding fluids bore no proportion to each other, the fæces fell in the tube, or exosmose was produced. Equal parts of this feculent matter, and a solution of gum arabic, were mixed together, and put into the endosmometer, but it rapidly fell in the tube; the quantity of gum was increased, yet endosmose was not excited, and it was not until 0.2 of the weight of the solution consisted of gum, that any inward impulse was induced. It is, therefore, to

the sulphuretted hydrogen which it contains, that feculent matter owes its endosmotic incapacity, and it is, probably, to the same cause we are to attribute the inactivity of putrid animal liquids, since sulphuretted hydrogen is evolved during animal putrefaction. From all these observations and experiments, it is obvious that all liquids, which exert any influence over this principle, may be arranged into three classes;—1st, Such as furnish a constant supply of endosmose, until the fluids or membranes used become unfit for the action of the principle; 2d, Such as possess the twofold property of producing and destroying endosmose; and 3d, Such as are *sedatives* of endosmose, of which, as yet, two only are known—sulphuric acid and sulphuretted hydrogen.

So far as we have yet seen, endosmose and exosmose seem to act separately, the one commencing on the cessation of the other, but, in reality, they are simultaneously operating agents; while the rarer fluid is carried in excess to that which is denser, the denser fluid passes to that which is rarer, and thus two opposite and unequal, yet not opposing, currents are carried on across one and the same membrane. A solution of the hydrochlorate of soda was enclosed in the endosmometer and surrounded with water, and endosmose was shortly indicated by the ascent of the solution in the tube. At the same time, the presence of the solution in the exterior of the fluid was detected, at first by the nitrate of silver, and afterwards by the taste, proving that endosmose and exosmose operated simultaneously, while the action of the former evidently predominated. In the same manner were tried various salts, and even organic liquids gave the same results: A solution of gum, coloured with indigo, was put into the endosmometer and immersed in water. In a short time the action of endosmose was apparent, and the blue color, which the surrounding water gradually assumed, showed that some of the indigo had escaped through the membrane. This *descending filtration* is not the effect of gravity, for when alcohol, or any liquid lighter than water, is inclosed in the tube, the operation of exosmose is as evident as that of endosmose, although inferior in degree; so that the accumulation of a liquid on one side or other of an organic membrane, is only the amount of the excess of one current over its opposite. We specify an *organic* membrane, because these vital principles are almost exclusively confined to vegetable and animal fibre. To discover whether endosmose would operate through a *mineral medium*, very thin laminæ of white marble, fine sand stone, crystallized sulphate of lime, and slate, were substituted for the piece of bladder which was tied to the end of the endosmometer. A solution of gum arabic was then introduced into the reservoir, and it was immersed in pure water; but no ascent of the fluid could be observed. Baked argil was the only mineral substance which excited endosmose, and it was found that, when a very thin lamina was employed, and a solution of gum arabic was the fluid used, there was very little difference between the activity of the absorption occasioned, and that manifested when an organic membrane was the medium. But when a few drops of sulphuric acid were mixed with the solution of gum, endosmose was arrested, showing that this mineral was subject to the very same laws with organic membranes.

It, therefore, appears, that of all mineral solids hitherto tried, none can excite endosmose but such as are aluminous, and that we may divide *solids* as well as *fluids*, into *inactive* and *active*, or into those which elicit endosmose and those which do not.

The velocity of movement occasioned by endosmose, is generally proportional to the excess of the density of the interior fluid over that which is exterior. A solution

of 1 part of sugar and 3 parts of water, the density of which was 1.063, was enclosed within the endosmometer, which was plunged into rain water, and 19° of ascent were obtained at the close of an hour and a half. A solution of 2 parts of sugar and 4 parts of water, density 1.145, was introduced into the same instrument, and 34° were obtained after the same period. A third solution of 4 parts of sugar and 4 parts of water, density 1.228, gave 53° at the end of the same time, and by the same instrument. For the purpose of measuring the *force* of endosmose Dutrochet constructed an apparatus somewhat similar to that employed by Hales, Mirbel and Chevreul, to ascertain the ascensional force of the sap in the vine. It is merely a common endosmometer, the tube of which, in place of being straight, curves twice upon itself; but for a more minute description we must refer to the original, where the reader will be furnished with a plate. Into the reservoir of this instrument a solution of sugar, of the density of 1.025, was enclosed, and in 28 hours it had raised an inch of mercury in the tube 10 inches and 7 lines; a second solution, density 1.053, was tried, and in 36 hours it had raised 10 inches of mercury 22 inches and 10 lines; a third solution, density 1.110, elevated 22 inches, in two days, 45 inches and 9 lines. These three experiments were made in an apartment whose temperature was 16½° R, and it is obvious from their results that the law, which we have above announced as applying to the *velocity* of endosmose, will equally apply to its power;—that is to say, that the force of endosmose is proportional to the excess of the density of the interior over the exterior liquid. The saccharine solutions employed in the above experiments were of different densities, expressed by 1.025, 1.053, and 1.110; so that the excess of the density of these solutions over the exterior fluid, which was water, its density being regarded as 1.000, was 0.025, 0.053, 0.110; and if we establish a similar progression of effects, by choosing for our first term 10 inches and 7 lines,—the height to which the column of mercury was raised by the first solution,—we shall have 10 inches and 7 lines; 22 inches 10 lines; 45 inches 9 lines. The existence and operation of this law being thus indisputably established, a knowledge of the density of the fluids used is sufficient to enable us to discover the amount of endosmotic effect which they can produce, and a knowledge of the effects produced is sufficient to enable us to ascertain the density of the fluids used; or, in other words, the density of the fluids being given the amount of endosmose may be found, and the amount of endosmose being given the density of the fluids may be found. So that by means of a common endosmometer, such as was employed in these experiments, the temperature being always the same, a syrup made of sugar, of the density 1.3, would generate such an endosmotic force as could raise a weight equal to four atmospheres and a half!

Dutrochet believes that the seat of endosmose is in the capillary pores of the *active* partition which separates the two heterogeneous fluids. But we have seen that *active* fluids are as necessary to its existence as *active* solids, that when sulphuric acid was poured into the receiver of the endosmometer the membrane was converted from an active to an inactive medium, and that, until the incapacitating influence of this *sedative* was removed by ablation, no endosmose was manifested. When an active fluid was brought into contact with an inactive medium no endosmose was elicited; when an active medium was exposed to an inactive fluid the same result occurred; when both medium and fluid were active endosmose was produced; and when both were inactive none was generated. An inactive fluid renders a medium naturally active inactive, and an inactive medium makes a fluid of itself active perfectly inert; so that we can see no superiority on the part of the medium over the liquid, nor of the liquid over the medium, and the author's reasoning on the nature of inflammation, which we shall adduce hereafter, would countenance a view the very opposite. We do, therefore, imagine that active fluids being thus as essential as active solids to the operation of endosmose, it is more philosophical in the present state of the subject to say that this principle results from the contact and co-operation of both, than that it has its seat exclusively in either.

What the essence of this mysterious principle is has not as yet been clearly revealed, but experiments have gone far in tracing it to *electricity*. M. Becquerel has proved that the contact of liquids with solids excites electrical phenomena, when the liquids are such as may act upon the solids chemically. M. Nollet has ascertained that electricity accelerates the movements of liquids, and the following curious experiment in the *Annals de Chimie* has placed it beyond a doubt that galvanism has the property of communicating to them a very considerable impulse. Having separated a vessel into two compartments by a partition of bladder, filled one of them with water, and put a few drops only into the other, the positive pole of a galvanic pile was placed in the full apartment, and the negative pole into that which was nearly empty. An active current was immediately established across the membranous partition, the water was made to exchange cavities, and ultimately rose to a height in what had been the empty division, even greater than that at which it stood in the division which had been at first full. Now, argues Dutrochet, the zinc employed in the galvanic pile is equivalent to the rarer, and the copper to the denser fluids, and as the negative pole is represented by the former, and the positive pole by the latter, the course of the water in the above experiment exactly corresponds with that followed during the generation of endosmose;—or, in other words, it is directed from the rarer to the denser body. This similarity is too striking to lead to no suspicion of the identity of endosmotic and electrical agency, and the supposition which it encourages meets with still stronger support from the following phenomena.

The cæcum of a pullet was tied to the extremity of a glass tube, and the opening in the end of this tube was closed by a piece of cork, through the centre of which a copper wire was passed from the tube into the cæcum. This wire was intended to establish a communication between the interior of the gut and the negative pole of the pile, and the glass tube served to insulate the water which was in communication with the positive pole from that in which the cæcum was plunged. The cæcum thus situated was an empty sac, into which nothing could enter but through its coats. The action of a small pile was now applied, and in twenty minutes the gut was filled to turgidity. The relation of the poles was now reversed, and the positive end of the pile made to correspond with the interior of the gut, but not a drop of water was introduced. In order to prevent the accumulation of hydrogen by the decomposition of the water, as some had been generated in the last experiment, the wire was introduced into a very fine glass tube open at both ends, and both were passed through the cork into the interior of the cæcum, so that the gas might be removed as soon as it was evolved, and the cavity of the gut left free to the admission of water. The pile was now applied, the gut immediately began to fill, and quickly became turgid; in half an hour the water rose in the capillary tube, poured over its superior end, and only ceased to flow when the action of the pile became weak. It is known that when a salt, having an alkaline base, is subjected to the action of galvanism, it is decomposed, the alkali is deposited at the negative, and the acid at the positive pole. Now, since the negative end of the battery corresponds with a rarer, and the positive with a denser fluid, this disposition of the constituents of the salt is in strict accordance with the laws of endosmose.

But difference of density in the employed fluids is not necessary for the production of endosmose by galvanism. Some distilled water was put into the reservoir, and the endosmometer was plunged into distilled water; the wire, which was connected with the negative pole of the pile, was then brought into contact with the interior water, and that belonging to the positive pole with the exterior water. Immediately ascent was perceptible in the tube, the water soon overflowed its upper end, and the current ceased only with the energy of the battery. The phenomena of endosmose having been thus generated by galvanism, a series of similar experiments were commenced to discover whether exosmose could also be elicited. The cæcum of a pullet was filled with water and every thing

about the apparatus was similarly arranged as in the preceding experiment, except that the situations of the poles were reversed, the positive wire being placed in the interior water. An electrical current, directed from the positive to the negative pole, drove the water which was enclosed in the gut through its coats, and in less than half an hour left it entirely empty. A pod of the *Colutea Arborescens* was substituted for the animal membrane, and the same results were obtained.

It is certain, therefore, that both endosmose and exosmose can be elicited by galvanic electricity, and the alternative of two inferences is unavoidable;—either that these agents depend upon galvanic electricity for their activity, or that they can be generated by galvanism, as well as by the contact of active liquids with an active medium. Had we space, the analogy between these powers might still be more closely traced; for it has been ascertained by repeated experiments that all solids, which are active in eliciting endosmose by the co-operation of active fluids, are likewise active under the influence of electricity;—that the reverse of this fact is equally true;—that, with the exception of sulphuretted hydrogen, which seemed to have no sedative effect upon the generation of endosmose by electricity, the active and inactive fluids stood in the same relation to it with the active and inactive solids;—that endosmose and exosmose are simultaneously operating principles, whether elicited by the pile, or by the agency of active solids and fluids;—that elevation of temperature in the zinc and copper is accompanied by increase of action in the pile, a fact which also obtains in endosmose commonly produced;—and finally, it has been found that when the cæcum of a pullet has been nearly filled with white of egg and introduced into water, it soon becomes turgid from the operation of endosmose, and when it is opened some hours after the experiment, its interior surface is found coated with a membrane formed of coagulated albumen; but, while it is well known that albumen is coagulated by electricity, no cause for such an effect in this case can be discovered: in any part of the apparatus employed in the experiment.

Having now at sufficient length, and we hope with sufficient perspicuity, established the existence of a physico-organic agent of great power, whose mode of operation has not been hitherto understood; having detailed its phenomena and illustrated its habitudes; having examined its essence and ascertained its seat; having investigated the conditions of its agency and calculated the amount of its power; it only remains to apply it to such departments in animal and vegetable life as it may serve to illustrate: and it is presumed that the facts which have been advanced during this inquiry, are quite equal to prove that if such agent can be made to operate, without any diminution of its momentum or any modification of its laws, upon living beings, and within moving mechanism, it will be amply capable of solving difficulties hitherto unexplained, and of executing functions, whose motive powers and machinery were almost equally unknown. That such an agent does operate on living beings and in living mechanism, we shall now enter into the author's reasoning to prove;—and, first, with respect to vegetables.

The vesicles, or cells of which vegetables are composed, generally contain organic liquids denser than water. To prove this would require more time than we have now to spare; but let him, who scruples to admit this assumption, look into the *Recherch. Anat. &c.* of Dutrochet, and he will therein be furnished with the required evidence. These cells, consequently, ought, in accordance with the laws of endosmose, to generate this agent immediately their exterior walls are brought into contact with water. Turgidity of these cells is then the next and necessary consequence; but we have previously shown that turgidity is inseparably connected with, and essential to motion, so that it is only requisite to suppose that these cells are externally exposed to water, to have an agency generated which shall be sufficient to explain all the phenomena of vegetable circulation. In addition to these facts, many other conditions of endosmose will be found in vegetables. Thus, it has been proved that, so soon as plants begin to

spoil, or, in other words, so soon as the fluids included in their cells become putrescent, the turgid state is lost on which depends the ascent of the sap; but endosmose ceases when the denser fluid becomes putrid, therefore endosmose and this turgid state are either intimately or inseparably connected. It has likewise been proved, that increased temperature is a *stimulus* of endosmose, and the influence of temperature upon vegetable growth is universally admitted. Each vesicle or cell absorbs and exhales continually, and the sum of the fluid gained, or lost, is only the excess of one of these actions over the other; but so is it with these physico-organic principles, they operate simultaneously, and the existence of endosmose, or of exosmose, is merely the result of the predominancy of one of them. These points of analogy are given only as a specimen of such as might be advanced in proof of the position, that endosmose and exosmose operate on living vegetable fibre, and that both the afflux of the sap to the roots and its impulse along the vessels can be most satisfactorily accounted for by the agency of these principles alone.

To explain the mechanism, by which this afflux and impulse are carried on, it is necessary to observe that there are small cellular organs at the end of the roots, called by Decandolle *spongiolæ*, (because even by him they were believed to have an absorbing power, although this power was not properly understood,) which are the grand seat of impulse in all vegetables; and, though they imbibe as well as impel, there can be no doubt that the latter action is the stronger, and that their principal function is to send upwards to the leaves the lymphatic sap. If the upper part of a branch of vine be cut across during Spring, the sap will pour over the incised surface; if the stem be cut across during this discharge, the ascent of the sap in the separated part is immediately arrested, and none is found to overflow; but if the cut surface of that portion of the stem which continues attached to the soil, be examined, the sap will be seen to exude from it as actively as it did from the upper surface before the lower cut was made; and similar amputations, made from above downwards even along the roots, will be followed with similar results, until we arrive at these cellular cones, or spongiolæ, when all circulation will be effectually destroyed by their removal. From this simple experiment, it is very obvious that the sap tubes have very little, if any share in the circulation of their contents, and that it is to the spongiolæ we must look for, at least, one cause of their ascent. These bodies, when situated under ground, are always surrounded with water, the cells which compose their interior structure contain a fluid denser than water, and the result of such physical conditions must, therefore, be endosmose; for we have not only two active fluids and an active medium, but the internal fluid is the denser of the two. The endosmose thus generated fills these spongiolæ, and, since nothing introduced within them can evaporate as in the leaves, that turgid state is produced upon which impulse depends. But the lymphatic tubes are the *excretory ducts* of these glands, so that when the impulse begins, the contents of the spongiolæ ascend in the sap vessels, more water is then imbibed to supply the place of what has just been expelled, a fresh impulse is the consequence of a fresh state of turgidity, the ascending column of sap is urged along by this *vis a tergo*, and thus is established an ascensional movement, which Mirbel and Chevreul have found to be supported by a pressure superior to that of the atmosphere.

We have said that the lymphatic tubes do not appear to take an active part in the ascent of the sap, and our assertion has been grounded upon a very simple experiment. But it may be asked, if this be true, how do branches, which have been separated from their roots continue to vegetate, when their cut extremities are immersed in water? A branch of *Mercurialis* was placed in water, to which one forty-eighth of its weight of concentrated sulphuric acid was added. At the end of four days the acid had risen in the plant above the level of the fluid in which it was immersed, and although every portion of the plant, except the leaves had been killed by the acid and had become brown, absorption continued. In this case, the acid had not

reached the leaves and, therefore they escaped, but having penetrated every other part, every other part was rendered incapable of Contracting, because deprived of life; but absorption was carried on till the very last, so that both afflux and impulse must have depended on the suction-power of the leaves. Now this suction-power is only another name for endosmose, because, constituted like the spongiolæ, leaves both exhale and inhale moisture. The leaves and spongiolæ are, then, to be considered the *heart and lungs* of the circulation of the sap in vegetables. By one of these organs it is drawn up, by the other it is propelled, by both it rises. But they are more than heart and lungs; they are also *absorbents*. The spongiolæ attract as well as expel, the leaves expel as well as attract; the spongiolæ cannot expel until they have attracted, the leaves cannot attract until they have expelled. They are in fact possessed of the same powers inverted. Attraction is predominant in the one; impulse in the other. The leaves are the origin of a feeble impulse, and the centre of a strong attraction; while the spongiolæ are the centre of a feeble attraction, and the origin of a strong impulse. So that, in the strictest sense of the expression, both spongiolæ and leaves are *double self-working pumps*, made to fill and empty themselves by the same machinery and at the same moment. The endosmotic power of the spongiolæ occasions an afflux of the fluids which surrounds the roots, this afflux keeps these organs in a constant state of turgidity, this turgidity generates an impulsive power, this impulsive power acting on the enclosed fluid raises it in the sap vessels, this ascent is unceasingly supported by the unceasing introduction of fresh fluid into the spongiolæ, and when the weight of the ascending column becomes unfavourable to its progress as it approaches the leaves, the suction-power of these organs adds its influence to the *vis a tergo* of the roots, and the motion which exosmose commenced, endosmose completes. The crude and indigested sap is now converted into an elaborated and nutritious fluid; the leaves which strongly attract weakly impel; the liquid which ascended in the lymphatic tubes now begins to descend in the cloisters of the bark and wood, which we have shown to be endosmotic organs; and the moving powers of the leaves and cloisters must be somewhat assisted by the force of gravity.

The ascent of the sap by impulse is complete only in the lymphatic tubes whose caliber is continuous; in the cloisters of the wood and bark, in the stems of grasses which are studded with knots, and in the vessels of young plants which are interrupted by numerous partitions, its motion is mainly conducted by afflux, exerted by one organic cavity upon its neighbour. At first sight this difference of structure might appear unfavourable to motion, but if the laws of the agents, which we have endeavoured to unfold, be properly understood, it will be evident that the very reverse is the truth. Each of these cloisters and each division of these partitioned tubes is an endosmotic organ, or an *organic leyden vial*, and is, consequently, possessed of powers within itself sufficient to execute the transmission of its own fluids; and when the separate actions of all these centres of motion are united, the sum of power must equal, if not exceed, the impulse communicated by the spongiolæ of the roots. The action of these cloisters must also be kept in view in tracing the progress of the sap through the central medulla, the medullary radii, and every other portion of the vegetable structure, seeing by it alone we can account for such partial and irregular movements.

As the sap thus makes its way, by the operation of endosmose, into every fibre and every cell, as every fibre and cell is endowed with endosmose, and as endosmose never operates alone, but simultaneously with exosmose, almost every phenomenon of vegetable life, as well as the circulation of the sap, can be traced to the agency of these two physico-organic principles. To them are we to ascribe secretion and excretion, inhalation and exhalation, composition and decomposition, the ascent of the stem and the descent of the roots, irritability and contractility. But, as it is quite impossible for us to enter at present upon so extensive a field, we shall confine ourselves to one or two observations on some of their most remarkable operations. By a great many

experiments and observations made upon the *Impatiens Balsamina*, *Momordica Elaterium*, *Mimosa Pudica*, and other plants, Dutrochet concludes that the irritability of the ovary of the first, of the fruit of the second, and of the leaves of the last, consists of incurvability and contractile power. This incurvability depends on the decreasing size of the vesicles which compose the irritable tissue; these vesicles contain an organic fluid denser than water; when they are exposed to a rarer liquid they exercise endosmose, and the irritable tissue so bends that the largest vesicles occupy the convex side; when they are exposed to a denser liquid, they produce exosmose, and two effects follow;—the irritable tissue so bends that the smallest vesicles are on the convex side, and at the same time it contracts, or shortens, by the partial evacuation of the fluids they contain. The cells of plants are ever changing their fluids, and the fluids are ever changing their properties; in this way is alburnum converted into duramen, and each secretion formed.

It must be now tolerably evident to the attentive reader, that capillarity has little to do in any of these actions. Will capillarity absorb one fluid and reject another; will it *expel* as well as imbibe; will it act vigorously with sound fluids and slowly with such as spoil; will it absorb through one medium and not another, although the porosity of both be equal: will it support two currents at the same time, causing the stronger current to move in the direction of the denser fluid; in fine, will an agent, whose effects are limited to so contracted a sphere, explain the diversified, numerous, and brilliant operations of vegetable life? It is certainly through capillary pores that endosmose operates, and not through vessels made exclusively, and exclusively devoted to that purpose; but we know nothing either of their number, shape, or size; and it is only in this single point that capillarity and endosmose can be found alike.

We have been thus minute upon the application of these principles of vegetable life, because so many points exist in common between the endosmotic properties of plants and animals, that a full explication of the one will save much repetition during our investigation of the other. There is one marked peculiarity, however, between these two classes of beings;—the contractility, which is possessed by animals in a high degree, we have seen to be exceedingly weak in vegetables, and, therefore, many of the functions of animal life are exclusively performed by this *extra* property. While the blood, for example, continues in the arteries, its motion is almost, if not altogether, owing to the impulse of the heart and the contractions of the vessels; the phenomena of muscularity and locomotion are dependent on the same power. It is not unlikely that this contractility has a close connexion with endosmose in animal as well as vegetable fibre; but at present we shall only follow the author, while he traces its operations in the minute structure and functions of the animal system. It has been already frequently observed that the fundamental conditions of endosmose are vesicular structure and the existence of a dense organic fluid in these vesicles. These conditions have been found in vegetables, in animals they equally obtain. In the *mollusca* the vesicular texture is very evident; even more so than in vertebrated animals. With a good microscope the walls of the vesicles, in certain parts of these creatures, may be seen to consist of an aggregation of smaller ones, but all, both large and small, are filled with organic matter. Among these vesicles blood-vessels ramify, but no immediate communication obtaining between them, the fluid they introduce must be transmitted through their capillary pores by filtration, which, as we have already seen in vegetables, is another name for endosmose. In *inflammation* the soft parts become turgid, the fluids in the neighbourhood of this turgescence are attracted towards it, an increased velocity is communicated to the local circulation, and thus is there formed a new or morbid centre of afflux and origin of impulse, or, in other words, endosmose is generated. Now this principle, whose effects are so visible in disease, likewise exists in a normal state, but in an inferior degree. The capillary circulation is conducted by it. The blood of the small arteries is drawn into their capillary branches,

and it is to this afflux that the empty condition of arteries after death is to be ascribed; the blood of the veins receives in their capillary ramifications an impulse arising out of the previous afflux, which is analogous to that impressed upon the sap in vegetables by the leaves, and when there are no capillary branches between the arterial and venous trunks, the impulse of the heart extends along the entire vessel, and alone conducts the circulation of its contents. In the *Salamander*, for instance, we see only a single blood-vessel, which, when it has arrived at the extremity of the tail, bends and returns to the heart, without presenting any distinction of artery and vein. Indeed, Spallanzani imagined that in all reptiles the action of the heart was the sole moving power in the circulation, and this opinion may be true so long as there are few capillaries, but when the arteries ramify minutely, the force of the heart is lost in the capillary circulation, and the blood proceeds under the influence of a new power. It is popular to believe that the smallest blood-vessels contract, but were this so, λ dyastole and systole were as necessary for them as for the heart, yet it is impossible to detect the slightest movement towards contraction or dilatation in their walls. The circulation of the blood, therefore, is a complex phenomenon, occasioned by the co-operation of many very different causes, but among the principal must be ranked contraction of the heart at one end and endosmose of the capillaries at the other.

These remarks will equally apply to the lymphatic and lacteal systems, but as no sufficient case has been yet discovered to solve the problems of their functions, endosmose will here be a more general agent. Accordingly, the structure of these vessels is peculiarly adapted to this principle. They are very minute, full of valves, always of the same bore, run in straight lines, and pass through bodies which are called glands. In truth, their conditions are so similar to those of the lymphatic tubes in vegetables, that, without much use of figure, we may style this the vegetable department of the vascular system in animals. These glands are equivalents to the spongiolæ of the roots, or to the knots of the stems in grasses; and, being placed at convenient distances from each other, will exert an attractive and impulsive power, amply sufficient to circulate the contents of the vessels, which pass through them. By afflux they will draw up, by impulse they will drive on, and when the weight of the rising column becomes too great for endosmose alone, endosmose comes in to make up for the deficiency.

Since then both endosmose and exosmose exist in the sound as well as diseased state of animals, it follows that inflammation is endosmose in a state of *disease*, or in a degree injurious to health. Now, one of the most ordinary causes of inflammation is the introduction of a foreign body into organic tissue, and one of the most essential conditions of endosmose is the presence of bodies of different densities in organic cavities; so that we are here furnished with a new reason why foreign *mild** bodies, denser than blood, produce inflammation or *hyper-endosmose*, and why hyper-endosmose will cease only on their removal. It has been already proved that the addition of a rarer fluid will weaken the endosmotic power of the vesicular liquid, and it is well known that the introduction of water into an inflamed part is one of the most effectual means of affording it relief. Hence the use of baths, lotions, fomentations, and embrocations. The introduction of water has the double effect of diminishing the density of the fluids which produce hyper-endosmose, and, by occupying their place, of expelling from the diseased part the peccant humour. The *modus operandi* of endosmose in curing inflammation is, consequently, the same with that followed in effecting nutrition! However strange this assertion may appear it is an inference strictly drawn from the laws of endosmose. It must be recollected that organic solids are composed of vesicles filled with a denser fluid than the blood which bathes their

* *Mild* bodies are specified in contradistinction to such as may produce inflammation, by operating *chemically* upon the living fibre.

exterior surface ;—that the blood thus situated must have a constant tendency to enter these vesicles, while their contents must also tend, but with less urgency, to pass out into the blood, or, in short, that each vesicle must exert a simultaneous endosmose and exosmose ;—that the introduction of new matter into the vesicles constitutes the phenomena of *composition*, and the expulsion of the old matter *decomposition*, and that the conjunction of both phenomena constitutes the function of *nutrition*. It must again be recollected that the fluids contained within these vesicles may acquire either an unnatural density, or new chemical qualities, which shall increase their ordinary endosmose ;—that, therefore, the blood, which is the exterior fluid, will tend to enter them in unusual quantity, and with unusual force ;—that great turgidity will be the result of a stronger impulse than natural given to the venous blood ;—that this increased power of introduction and expulsion, which is *morbid hyper-endosmose* or inflammation, tends to produce an entire renewal of the interior fluids of the vesicles ; and that the period of this renewal is that of the complete cessation of morbid hyper-endosmose, if it have arisen from any alteration in the chemistry of the vesicular fluids, but if from their increased density, the hyper-endosmose will cease only when the proper consistence is restored by a sufficient introduction of a rarer substance. So that the *vis medicatrix naturæ*, of which we have heard so much and known so little, is nothing, whether in health or disease, but the continual play of a double power properly balanced, whereby fluids of different densities and constitutions are transferred from one organic cavity into another, and that the proper seat of inflammation is not in the walls of the vesicles or *solids*, but in the *fluids* which they circulate. It also appears that in a healthy state vital motion consists in the predominance of endosmose over exosmose, and that the degree of this predominance is fixed by the peculiar nature of the living being. When it becomes excessive we have diseases of excitement, and when it falls below *per* atonic maladies are produced. The predominance of exosmose is the entire destruction of the natural type of vital motion, and a state of local *hyper-exosmose* can only occur by the production of a new electrical condition, which would, by accelerating the motion of the heart, induce such a febrile state as a local hyper-endosmose would occasion. Thus does it become possible that two phenomena, of opposite characters, may be confounded under one general name—a name without a notion—*irritation*.

From the application of the same principle to the cure as well as the nature of disease, the author lays down an outline of the proper treatment to be followed in inflammation under the following heads, which we shall merely enunciate ; 1st. The removal of the substance which causes hyper-endosmose ; 2dly. General depletion, which, by lessening the general afflux, will diminish the local hyper-endosmose ; 3dly. Local depletion, which gives relief in consequence of the blood removed, and by the derivation produced, or, in other words, by lowering the turgid state and forming an artificial afflux ; 4thly. The establishment of a temporary endosmose superior to that of the disease, by blisters and rubefacients applied in the neighbourhood ; 5thly. The application of water and all fluids rarer than the blood, by which the intensity of the endosmose may be lessened ; 6thly. The introduction into the system by absorption, friction, &c. of such substances as will create an artificial general endosmose less dangerous than the disease ; Lastly. The establishment of exosmose by surrounding the diseased parts with substances denser than the enclosed fluids, as poultices and acid lotions.

Absorption and exhalation were generally regarded as results of vascular action, until Magendie endeavoured to show that mere infiltration will account for both. The experiments by which he arrived at this inference are ingenious, but all analogy is in opposition to his doctrine, and we doubt not but a few years will divest it of the artificial popularity, which the talents of its proposer have obtained for it. Dutrochet, as may be supposed, is

equally inclined with ourselves to impugn this theory, and he accounts for the phenomena, which it attempts to explain on his own principles. How, argues he, can an animal like the polypus, which has not a vascular system, continually absorb in virtue of capillary power; for when capillary cavities are once filled, no more fluid can be introduced. Not so in absorption produced by endosmose; it is constant, because it is accompanied by exhalation equally constant, which is the effect of exosmose. Every organ which is placed in a certain relation to fluids, will absorb and exhale; but these conditions are so necessary, that the absence of any one of them is fatal to the agency of all. In this manner can be explained a phenomenon, which has perplexed the most skillful physiologists,—we mean *elective attractions*. Thus, the chyle is the only fluid absorbed by the lacteals, although it and the feces are intimately mixed and brush along their mouths in company; and why, because feces produce exosmose, and milk, to which chyle bears a near similarity, produces endosmose?

In vegetables we have seen that secretion is conducted by endosmose; in animals it seems to be effected by the same power. The secreting organs of animals like those of vegetables are hollow bodies, through the walls of which the secretions are transmitted. In the molluscæ these hollow organs, or vesicles are seen by the microscope, intermixed with blood vessels and excretory ducts. The walls of these vesicles are pure *chemical filters*, which, under the influence of an electrical current, receive and modify certain elements of the common circulating fluid. The substance thus secreted is afterwards expelled by exosmose towards the excretory canals, or, if they be obstructed towards the blood-vessels. So that when secretion is considered in this manner, it becomes a general principle to which nutrition itself seems to belong; for the nervous vesicle creates the nervous matter which fills it, the muscular vesicle, the substance to which it owes its peculiarities, &c.; these vesicles then expel the substances they secrete, and these substances when expelled fall into the blood-vessels, which are the only excretories belonging to the *secretion of nutrition*.

The extent to which we have now drawn this article compels us to bring it to a close; but no one can be more sensible than we that the distinguished author, whose labours we have been reviewing, has been dismissed too soon, and that a protraction of the interview would be as instructive, as it would be interesting. But we trust that the sample we have exhibited will recommend the stock out of which it came, and that the inadequacy of our supply will induce the admirer to have recourse to the fund out of which we drew. For ourselves we can say, without being taxed with either adulation or venality, that Dutrochet is a physiologist of the first caliber, and his works, performances of the first rank; that the simplicity of the agent which he has discovered can only be equalled by the extensive application it admits; and that the evidence upon which its existence and laws are founded, must satisfy any impartial judgment. We doubt not that, like other discoverers, he has occasionally stretched his principles to their utmost length; but we can overlook such *fatherism* towards such a fondling, convinced as we are, that the superior judgment of the parent will never suffer affection to *spoil* his child. Scarcely is there a point of difficulty in animal or vegetable physiology to which this principle does not reach, some which were perfectly unknown, it perfectly explains, and on none to which it can be applied, does it fail to shed considerable light. Circulation, absorption, nutrition, secretion, and even life itself seem indebted to its agency; and, should subsequent Inquirers find the result of their labours to correspond with those now laid before us, a new *Land of Promise* has been brought to light, which requires not a view from *Pisgah* to discover a rich variety of fruit.

V.

THE MEDICAL CALENDAR ; OR, STUDENT'S GUIDE TO THE MEDICAL SCHOOL IN EDINBURGH, LONDON, DUBLIN, &c. TOGETHER WITH THE REGULATIONS OF THE PUBLIC BOARDS, CORPORATIONS, &c. IN GREAT BRITAIN AND IRELAND. Small Octavo, pp. 220. Price Four Shillings. 1829.

MEDICAL SCIENCE is now become an article of such extensive commerce, and the manufacture of it a trade so very profitable, that manufactories and depots are daily multiplying throughout these Islands. It was therefore high time that a calendar should be annually constructed to direct the public to the best as well as the cheapest shops where this valuable commodity may be obtained in its greatest purity.

Who can look back through memory's telescope for 30 or 40 years, and not be convinced that modern REFORMERS, the Peels and Warburtons of the day, have "broken in upon the constitution of 1798," and threaten us with ruin! There was a time, and many of our readers must remember it with a sigh, when the anatomico-chirurgical manufactory in Blenheim-street alone could furnish the Army, Navy, and East India Company—that is to say, the whole of the exportation trade (besides a considerable proportion of home consumption) with DOCTORS—and that, too, with as much celerity and cheapness, as *Brummagem* furnished muskets for the same service!—Who can pass up that renowned street, without missing those balmy odours on which his olfactories were wont to regale, while he lingered on the steps that led him into the "tide of human existence," for ever rushing along Oxford "Road."

"These were thy charms—but all these charms are fled."

That great emporium of anatomico-chirurgery is now shattered into atoms, and a host of petty markets, or rather stalls are set up, in every direction, for the retail of little "odds and ends" of anatomy, garnished with much preceptive surgery that passes through many *heads* before it reaches any *hands*! This is the "march of intellect." Be this march slow or quick, we suspect the better anatomists were turned out of Windmill-street and Blenheim-street 30 years ago, than at the present period.* We are willing to hope that the difficulty of procuring subjects, and the expense of purchasing them, have been the main causes of this falling off in anatomical knowledge—but we cannot help fearing that there is less of professional enthusiasm, and more of pecuniary calculation, now than then. Considering,

* Mr. Thomas, of Leicester Place, who was then demonstrator of anatomy in Windmill Street, can vouch for the following fact. Some 28 or 30 years ago, six individuals, of whom the Editor of this Journal was one, formed themselves into a society, and each, in his turn, gave a public demonstration in anatomy daily at his own expense, in the theatre or dissecting room. They not only did so, but invited the audience, who were very numerous, to discuss the merits of their demonstration, when it was over. Is there such zeal exhibited at the present day?

however, the increased influx of young men into the profession, in modern times, and the obstructed outlets for them, in these piping times of peace—taking into consideration the “*res augusta domi*,” under which they embark, and the heavy expenditure which they must *unavoidably* encounter, we do not much wonder at the economy which they evince in all matters where they have a choice.

We are credibly informed by the principal medical booksellers who come most in contact with students, that compendiums and short cuts to knowledge are now almost the only works which they purchase, while the standard productions of medical and surgical science are left to moulder on the shelves! These are bad “signs of the times.” The minds of medical students have been poisoned for some years past. They have been prompted to hate and despise their masters—to condemn the institutions before which they are to appear for examination—and they are taught to believe that it is a great merit to elude the laws by every species of artifice! But they have at length become acquainted with the nature of the poison, and they have dashed it from their lips. A better æra is approaching—and, when the facilities for prosecuting anatomy shall have been effected—a more uniform system of elementary education established—more rigid and practical examinations enforced—and clinical lectures delivered in all our hospitals, we have no doubt that the medical youth of this country will go forth to the practice of their profession better qualified than their forefathers.

But to return to the Calendar. It is mortifying to see in these limited isles so many places for granting degrees, diplomas, and licenses in medicine and surgery, no two of them enjoining a similar code of elementary education! This is a sad state of things—but while it lasts, a calendar similar to that before us is indispensable. To give any analytical review of such a work would be impossible. We have looked over it, and we have reason to think that great pains have been taken to render it correct in all essential points of information. We shall present two or three articles which will, at the same time, afford specimens of the work, and useful intelligence to many who are educating their sons for the profession.

I. DUBLIN.

Regulations of the University of Dublin, relating to the Degrees of Bachelor and Doctor of Medicine

“FOR THE BACHELOR’S DEGREE.—The Candidate must present to the Register of Trinity College Certificates of having attended Lectures on the following branches, viz. Anatomy, Surgery, Chemistry, Botany, Institutes of Medicine, Practice of Medicine, *Materia Medica*, and two courses of Clinical Lectures given in immediate succession. These Certificates must all be taken from the Professors in Trinity College, and the King’s professors, appointed by the Act for establishing a complete School of Physic in Ireland, unless some three Certificates for the same Courses in the University of Edinburgh be produced, which are admitted by the Board: But the Certificates from any other University or College, or from any private School, are not received as qualifications.

“On the production of the above Certificates by the Register, the Board grant commission to the Candidate to be examined by the four Medical Professors of the University, viz. the Regius Professor of Physic, the Professor of Anatomy, the Professor of Chemistry, and the Professor of Botany, provided the proper time, according to the statutes, has elapsed from the period of his graduating as a Bachelor of Arts, which examination is conducted in the Latin language. If the Candidate be found

qualified, the Professors individually certify the same, on which he is permitted to perform the exercises mentioned in the statutes, and at the next half yearly commencement, the degree of Bachelor of Medicine is conferred on him by the Vice-Chancellor of the University.

"If the degree of Master of Arts be taken previously to that of Bachelor of Medicine, the degree of M. B. can be obtained in either the University of Oxford or Cambridge, which qualifies the person for being elected a Fellow of the College of Physicians of London, to whom several privileges and advantages belong.

"FOR THE DOCTOR'S DEGREE.—After the proper time, as specified in the statutes of Trinity College, the degree of Doctor of Medicine is obtained on submitting to a second examination by the Medical Professors of the University, writing and publishing a Latin thesis on some medical subject, and performing the exercises directed in the statutes for the degree of M. D.

"According to the Rules of the English and Dublin Universities, a portion of the study in Arts, as in Medicine, may be taken in one and finished in either of the other two Universities.

"Deposit for M. B. L. 11, 15s.—for M. D. L. 22.

"The degree of Bachelor and Doctor of Medicine, from Trinity College, rank with the degrees of M. B. and M. D. of Oxford and Cambridge." 143.

II. PARIS.

"At Paris the Medical Lectures are given, 1. By the Professors of the Faculty of Medicine at the School of Medicine; 2. By Private Teachers, who have established Theatres around the School of Medicine. The Winter Courses continue from the beginning of November to the end of March, the Summer Courses from the beginning of April to the end of August. In September and October there are no Lectures."

"To the Parisian Hospitals, with the exception of the Hôtel-Dieu, the Venereal Hospital, and the Military Hospitals, there is almost unrestricted admission. Students who have been two years engaged in the study of medicine, and those who have obtained a Medical Degree or Surgeon's Diplomas, obtain tickets of admission to the Hôtel-Dieu, on applying to M. Dupuytren, the Surgeon.

"The *carte* which is obtained on application to the Bureau of the School of Medicine, gives the right of admission to the other Hospitals, as well as to the Lectures of the Professors of the Schools. This *carte*, unless a certificate is desired, such as is required for a degree either at Paris or elsewhere, costs nothing. Those who wish to obtain such certificates, with a view to graduate out of France, pay 25 francs at every inspection, that is, every three months. Students who design to graduate at Paris pay 50 francs at each inscription; and the sums so paid are reckoned as part of the 1000 francs, which is the total expense of a degree at Paris, and of the studies in Medicine required for it.

"Beyond this fee at the inscriptions, the Student is at no expense in the public courses of the School of Medicine, unless for subjects in the Dissecting-rooms. In the Dissecting-rooms at the Hôtel-Dieu, which are free to all, subjects cost from 6 to 8 francs. On paying about 60 francs, the Student may become a Pupil of the Assistants in the Practical School; for this sum, eight bodies are allowed to six pupils.

"The LIBRARY of the FACULTY of MEDICINE is open for the consulting of books on Mondays, Wednesdays, and Fridays, from 11 to 3 o'clock.

"There are many private Reading-rooms in Paris, where Students, on paying a *small sum*, may consult Medical Books daily. The Books are not usually lent out.

"The MUSEUM of the SCHOOL of MEDICINE contains a magnificent Collection

of Anatomical Preparations and Casts, Models of Surgical Instruments, and Specimens of the Articles of the *Materia Medica*. They are open on the same days, and at the same hours, as the Library.

"The BOTANIC GARDEN, or *Jardin des Plantes*, is one of the richest in the world. There are attached to it Collections of Animals, and other objects of Natural History. Lectures are given here in various departments of Natural Science.

"The FACULTY OF MEDICINE at Paris confer two Degrees—the Degree of Doctor in Medicine, and that of Doctor in Surgery. Sixteen inscriptions, or four years' study, are required for either Degree. The Candidates must have obtained previously the Degrees of Bachelor of Letters and of Bachelor of Sciences. There are five examinations for the Degree of Doctor, which take place, by the late regulations, at stated periods throughout the four years' course of study. A Thesis also is defended, which is afterwards printed." 161.

III. GLASGOW.

"MEDICINE.—I. Every Candidate for a Medical Degree must bring evidence that he has reached the age of Twenty-one.

"II. He must bring evidence of having attended for four years some University in which Medicine is regularly taught, or the Lectures delivered in the Theatre of the College of Surgeons, Dublin; or those delivered in London: one of these years, at least, he must have attended the University of Glasgow.

"III. He must produce Certificates of having attended the following Medical Classes, in the above-mentioned Schools—each Course being reckoned to last during six calendar months, viz.

- "Anatomy, during Two such Courses.
- "Chemistry, during Two such Courses.
- "Institutions of Medicine, One such Course.
- "Practice of Medicine, One such Course.
- "Materia Medica, One such Course.
- "Midwifery, One such Course.
- "Surgery, One such Course.
- "Botany, One Course in a University.
- "Infirmary, during Twelve Months.

"N. B.—Two London Courses, of between three and four months each, to be reckoned equivalent to one six months' Course.

"IV. Each Candidate for a Medical Degree must announce his intention, and lodge the requisite Testimonials with the youngest Member of the Medical Faculty in the University, two months before the time of Graduation; that is to say, by the 1st of March and the 1st of June, otherwise he cannot be taken on Trials till the following year.

"V. Every Candidate for a Medical Degree shall undergo three Examinations. The first on Anatomy and Physiology; the second on Chemistry and Pharmacy; and the third on the Practice of Medicine. He shall likewise write a Latin Commentary on an Aphorism of Hippocrates, and a Medical Case.

"VI. The Degrees shall be conferred on those Candidates who have acquitted themselves to the satisfaction of the Examinators, on the last Wednesday of April, and the first Wednesday of August in each year, and at no other time." 174.

IV. ABERDEEN.

MEDICAL DEGREES.—"I. Every person offering himself as a Candidate for the Degree of M. D. shall first produce satisfactory evidence of his possessing a good character, and of his having attained the age of twenty-five years; and secondly shall lay before the *Sanatus Academicus*, Certificate of his having obtained the Degree of A. M. in this, or

some other University, after the usual Examinations;* of his having attended Courses of Lectures on Anatomy, Surgery, Chemistry, Materia Medica, Theory and Practice of Physic, and Botany, in this, or some other University or celebrated School, under Professors or Teachers of reputation; and of his having attended, for three or more years, a Medical Hospital, containing the average number of at least eighty patients.

"II. After the Senatus Academicus shall have been fully satisfied on the above preliminary points, the applicant shall be received as a Candidate for the Degree of M. D. and shall be required to appear before the University at one of their stated terms for granting such Degrees, and in their presence be examined by the Medical and other Professors on the different branches of Medical Science—on his knowledge of the Greek and Latin languages—and on such other branches of Literature as they shall see proper. If fully satisfied with the qualifications of the Candidate, the University shall confer on him the Degree which he solicits." 180.

V. ST. ANDREW'S.

MEDICAL DEGREES.—"1st, No Degree shall be conferred on an absent Candidate.

"2d, The Candidate must produce a satisfactory Certificate that he is upwards of 21 years of age, and that he is of unexceptionable moral character.

"3d, The Candidate, if he be not in possession of a Diploma as A. M., must produce Certificates of his having had a Liberal and Classical Education, and be ready to undergo an examination as to his proficiency in Classical Literature by a Committee of the University, or by the Senatus Academicus.

"4th, The Candidate must produce Certificates that he has attended in some University, or celebrated School of Medicine, for at least four complete Sessions during four years, the following branches of Medical Education, viz. Anatomy and Surgery—Practical Anatomy, or Private Dissections—Materia Medica and Pharmacy—Chemistry and Chemical Pharmacy—the Theory of Physic—the Practice of Physic—Midwifery and the Diseases of Women and Children—Botany and Clinical Lectures delivered by Professors, or accredited Medical Officers, on the cases of the sick in a large public Hospital. (It is not meant that the Candidates shall have attended more than two or three of the above-mentioned Medical Classes during one Session.)

"5th, The Candidate must bring Certificates of his having attended the daily visitations of the Physicians and Surgeons of such Hospital for at least six months a year, during two different years.

"6th, If the Candidate shall have so far satisfied the University, the Rector shall be requested to fix a day for his examination by the Medical and other Professors on all the branches of Medical Science; and provided this examination shall satisfy the Senatus Academicus, the Candidate shall have delivered to him a Medical case or cases with questions subjoined, which cases he must answer in writing, and defend his answers before the Members of the University.

"7th, The whole proceedings shall then be submitted to the consideration of the Senatus Academicus; and if they are satisfied, the degree of M. D. shall be conferred on the Candidate by the Rector, in the Hall of the public Library.

"Such are the Regulations appointed by the University of St. Andrew's to be observed in all ordinary cases. When, however, the Candidate, possessed of a Surgical Diploma from Edinburgh, London, Dublin, or Glasgow, shall have been in regular practice

" As the requisition respecting the Degree of A. M. might prove injurious to some Medical Students whose education is now in progress, were it to take effect immediately, it is resolved that it shall not come into full force till the year 1830."*

for some years, or when he shall have been appointed and have acted as Surgeon in his Majesty's Navy or Army, or to the Forces or Ships of the East India Company—a three years' attendance on the above-mentioned courses of Medicine, and one years' attendance on a public Hospital, shall be deemed sufficient to rank him as entitled to be examined.

"Farther, it is desirable that the Candidate communicate by letter with the Medical Professor, and send him a list of the Certificates he means to produce, before he repairs to St. Andrew's for examination. This may prevent disappointment, delay, and expense to the Candidate.

"8th, The University reserves to itself the power to confer Honorary Degrees in Medicine on highly distinguished individuals, who cannot be expected to comply with the above Regulations; but every such Honorary Degree shall be conferred unsolicited and free of expense.—*St. Andrew's, 25th Feb. 1826.*" 186.

The foregoing specimens are sufficient. The work is extremely useful, and cannot fail to be encouraged.

VI.

AN ACCOUNT OF THE MORBID APPEARANCES EXHIBITED ON DISSECTION IN DISORDERS OF THE TRACHEA, LUNGS, AND HEART, WITH PATHOLOGICAL OBSERVATIONS, TO WHICH A COMPARISON OF THE SYMPTOMS WITH THE MORBID CHANGES HAS GIVEN RISE. By *Thomas Mills, M. D. Honorary Fellow of the King and Queen's College of Physicians.* 8vo. pp. 302. 1829.

THE attention which we have paid to the writings of Dr. Mills, proves our estimation of their merits, but we cannot help thinking that, like most of the Continental pathologists, he over-rates the value of morbid anatomy, in the study of diseases.

"The further I advance in this investigation, the more fully I am convinced that *morbid anatomy is the principal source of useful practical knowledge*; this enables us to trace the connexion between the sign and the morbid change; between cause and effect:—the cultivation of this branch can alone exalt medicine to the dignity of science." vi.

We believe it is the "principal source" of practical knowledge—but we are by no means convinced that "the cultivation of this branch can *alone* exalt medicine to the dignity of science." The farther we advance, and the more we see of diseases, the less hope do we entertain that medicine can even be a *science* in the common acceptation of that word. Where the same causes produce opposite effects—where we find the same symptoms with, and without, any organic change, how can we ever expect the certainty of *science* in physic! If indeed morbid anatomy always enabled us to "trace the connexion between the sign and the morbid change," we would fall down and worship it as the god of our idolatry;—but, *knowing as we do that, in nine tenths of the diseases to which we are called, it is impossible to trace this connexion between symptoms and structural changes,*—

for the good reason that either no morbid change exists, or, if it exists, it is incognizable by the senses—knowing this, we say, we can only look upon morbid anatomy as one of the paths that lead to the knowledge of diseases, and that by far the easiest one to tread. That morbid anatomy is not a *sine qua non*, is proved by many examples of good practitioners who knew hardly any thing of this branch. We need only instance Sydenham, who never alludes to the subject in his writings. In making these observations, we do not mean to deny that morbid anatomy lets in a flood of light on the causes as well as the effects of diseases—for all changes of structure must be regarded as the effects of previous disease, though they, in their turn, become the causes of other and still more serious maladies. When we consider how little power we have over the organic changes, (with the exception of mere inflammation) and the functional disturbances consequent on these changes, we have great need to watch the causes of the original disorders—the disorders themselves—as well as their consequences, the morbid structures. On these last Dr. Mills and the continental physicians seem to keep their eyes somewhat too steadily fixed—and yet the very existence of these “morbid changes” is a melancholy satire on medicine—for it is the great object, the great duty of the physician to cure *disorder*, and thus prevent *disease*. But to our author.

Dr. Mills observes, that a review of the cases and dissections detailed in this volume, leads him to the conclusion that the diseases, whether of the trachea, lungs, or heart, were of an inflammatory nature—and hence the danger of treating them, or any of them, as nervous or spasmodic.

“But let me not be misunderstood;—my object is the discovery of truth, and, while from facts I am compelled to maintain the inflammatory character of these diseases, I do not say that every disorder of the trachea, lungs or heart is inflammatory, nor am I an advocate for indiscriminate blood-letting; on the contrary, I would here repeat what I have already stated with respect to fever; in some cases it is useless or injurious, while others only require the use of diluents, aperients, a low regimen and confinement. In fine, though these diseases are essentially inflammatory, and though a rational mode of treatment must therefore be based on this principle, yet, in order to give efficiency to our practice, it is necessary to *individualize*,—that is, to consider the particulars of every case, as the age, sex, and constitution; the habits and previous ailments of the individual affected; moreover, to take into account the nature of the season and climate; of the prevailing epidemic, if any exist, and of the various influence, whether moral or physical, by which the patient is surrounded. Thus, while it is necessary to *generalize*, in order to practise medicine scientifically; to practise it successfully, it is necessary to *individualize*.” vii.

The work is divided into three portions—the first and shortest embracing cynanche trachealis or croup. To this we shall now direct attention.

1. CYNANCHE TRACHEALIS.

There is no disease that demands prompter treatment than this. Dangerous in its tendency and rapid in its progress, it may prove fatal in a day, or even in a few hours. Dr. M. has repeatedly met with cases of cynanche trachealis unaccompanied by that croupy noise in respiration by which it is usually distinguished. The practitioner, therefore, who waits for this *supposed diagnostic symptom*, may commit a fatal error.

"As far as my experience goes there is no such disease as spasmodic croup, or croup unattended by inflammation—the contrary opinion appears to me pregnant with danger, as it leads the physician to trust solely to the employment of camphor, opiates, assafoetida, castor and other medicines called antispasmodic." 2.

CASES.

1. The first case related by Dr. Mills, was one of acute cyn. trach. complicated with cynanche tonsill. supervening on measles. The patient was a boy, 5 years of age, who, after four or five days of feverish symptoms shewed the morbillous eruption, attended with a husky cough, which became alarming by being sometimes accompanied by a sense of suffocation and a croupy noise. The fever ran high—he was bled to six ounces—and had a black draught. *Second Day.* The bleeding gave some relief—but the suffocating cough frequently returned. Fifteen leeches were applied to the fauces (as there was some difficulty of deglutition)—the warm bath was employed—and an emetic was exhibited. *Third Day.* The symptoms not materially relieved. A blister to the throat—calomel and James's powder every three hours. *Fourth Day.* Countenance swollen and livid—eyes staring—delirium; stupor, jactitation, pulse 130, skin hot and dry, speech inarticulate, appearance of strangulation, abdomen tense. Venesectione ad 3viij.—emetico-cathartic mixture. The bleeding produced instantaneous relief, and from this time the patient went on to convalescence.

COMMENT.

"We have a case of Cynanche Trachealis or Croup, accompanied by cynanche tonsillaris, which occurred during the eruptive state of measles—must not this be ascribed to the inflammatory action of the vessels of the cutis having been communicated to the fauces, and thence to the larynx and trachea? The eruption was copious and the fever high; suffocation was twice threatened, and as often relieved by blood-letting, cathartics and emetics, and by the application of leeches and blisters near to the seat of disease. Calomel and antimonial powder were prescribed, and fomentations were employed without any obvious benefit." 6.

2. The second case which we shall select (being the third in the work) affords a melancholy proof of the rapid march of this dangerous disease.

"Miss W—, æt. 6, a lively, healthy child, was this morning attacked with a troublesome croupy cough attended with pain in the region of the trachea, with difficulty of breathing, fever, loss of appetite, languor and oppression; as the day advanced the breathing became more laborious, and the cough more frequent—the expectoration was scanty and mucous, the lips became livid, the face was alternately darkly flushed or deadly pale, the eye lost its lustre—about six o'clock p. m. when I was called on, the fits of coughing had become more violent and the respiration more oppressed, at times the child cried out that she was suffocating, and with an anxious and wild expression of countenance suddenly applied the hand to the neck.

"Death took place at ten o'clock, p. m. about twelve hours from the commencement of the attack.

"DISSECTION BY MR. M'NAMARA, ASSISTED BY MR. AUCHINLECK. April 1, 1823.—The inferior portion of the trachea was covered with a thin cream-coloured purulent matter, its superior portion was completely obstructed by coagulable lymph, part of which had begun to put on the appearance of an adventitious membrane, the entire mucous coat had a preternaturally vascular appearance.

"*Bronchis, lungs and heart, sound.*" 10.

Dr. Mills thinks that, had an emeto-cathartic mixture been given, and blood-letting employed early, together with the other antiphlogistic measures, this child might have been saved. Nothing was administered but a little castor oil before Dr. M. was called in, and then deglutition was impracticable. The dissection is satisfactory as elucidating the nature and seat of the disease.

3. The third case was one of chronic croup cured by the antimonial ointment. The patient was eight years of age, who complained of a feeling of pins and needles sticking in his throat, with hoarseness, cough, difficulty of breathing and palpitation. The pulse was frequent and irregular, the face bloated, the eyes prominent and suffused. These symptoms had continued more or less, for some weeks, but the croupy paroxysms were becoming more severe. Emetics, cathartics, and the hot bath had been employed with some advantage. Dr. Mills, however, prescribed leeches to the throat, and two grains of calomel every four hours. Considerable relief followed; but on the third day afterwards, there was a tremendous paroxysm, requiring an emetic and a tepid bath. Notwithstanding the depletory system, together with mercury, was fully employed for several weeks, the boy was harassed with dangerous paroxysms of croup. At length a crop of pustules was brought out on the throat by the antimonial ointment, and the discharge kept up, by repetitions of the same. After this the boy had but one slight paroxysm and went on to convalescence. The complaint lasted, in all, several months.

"In the mode of treatment" says Dr. M. "different remedies were employed at different periods; the most effectual during the paroxysm were blood-letting, emeto-cathartics, and the hot bath—active aperients were often required, and they always proved serviceable; from a combination of calomel and opium, much benefit was also derived; it was, however, to the use of the tartar emetic ointment that the disease finally gave way; this was applied to the external fauces, and the pustular eruption thus produced was great, and the subsequent discharge, copious; so great indeed was the inflammation and ulceration, that it became necessary to poultice for several days the external fauces: since the application of the ointment there has been no return of the complaint, whereas, previously it returned every fortnight or three weeks:—it would appear then, as far at least as regards the case before us, that the counter-stimulus, and the long continued discharge thus excited, made a permanent impression on the disease, and totally changed the morbid condition and mode of acting of the internal vessels, which consequently resumed their wonted healthy actions.—now, as in three other similar instances, the same favourable result followed the use of this unguent, it may deservedly be ranked among the most valuable remedies for the cure of chronic croup, at the same time I am ready to acknowledge from experience, that like all others, it must, for obvious reasons, sometimes fail to produce the desired effect." 18.

In the commentary on another case which we do not deem it necessary to detail, Dr. M. observes that a spasm of the larynx or trachea, or of both, accompanies most cases of croup, and, in many instances, the danger is in proportion to its duration, and the degree of its intensity. "The spasms are induced by inflammation of the lining membrane of the wind-pipe, and then mildness or violence commonly depends on its degree and extent."

"To this general rule, however, there are exceptions, for in one post mortem examination, at which I was present, the marks of inflammation were not unusually striking, yet the spasms were urgent, and apparently caused the death of the patient."

"In the case now before us the spasms were violent, and often threatened suffocation;—that they were caused by inflammation may be inferred from the good effects of evacuants and counter irritants" 22.

This portion of the volume closes with a case of cynanche maligna, which gives Dr. Mills an opportunity of advocating strong and active depletion. The sufferer in this case was a young lad 14 years of age, who was attacked with superficial ulceration of the tonsil, after exposure to cold, together with low fever. A mild aperient was prescribed, and not much attention was paid to the complaint; but the ulceration gradually spread throughout the fauces, and assumed a livid appearance, with irregular edges, accompanied by fever, loss of appetite, and difficulty of swallowing. This was about the sixth or seventh day of the attack. On the ninth, there was acute pain under the sternum, with cough and difficulty of breathing—no amendment having taken place in the character of the ulcer.

"Ten ounces of blood were abstracted from the arm, the bark and wine were omitted, and a saline purgative was exhibited; on the day following, the tenth of his illness, the chest was considerably relieved, the febrile symptoms gradually subsided, and from this period the ulceration in the tonsils began to assume a more healthy aspect: rubefacients were applied to the external fauces, the borax gargle was continued, and the aperient was frequently administered: under this treatment and a low regimen the patient was able to leave his room on the 18th day of the attack." 32.

It is dangerous to draw inferences from insulated cases; but as far as an individual instance can be depended on, we agree with Dr. Mills that the amelioration in the appearance of the ulcer in the above case, after bleeding, would lead to the inference "that, under certain circumstances and in peculiar constitutions, cynanche maligna may demand the employment of blood-letting and aperients." Dr. M. properly adds that, in old and debilitated constitutions, or at the close of tedious illness an opposite treatment will generally be necessary, viz. bark, wine, cordials, and nutritious diet—always remembering to keep the bowels open—and to apply leeches and blisters to the throat.

II. DISEASES OF THE LUNGS.

Notwithstanding all that has been written of late, on pulmonary diseases, there will be found many important observations and facts in this part of our author's work. Dr. Mills is a practical man—and all facts recorded by such men are valuable.

On reviewing the cases and dissections contained in this section of the work, our author finds that ossification of the cartilages of the ribs, and chronic inflammation of the heart and lining membrane of the bronchia, were frequently detected in the bodies of those who had laboured under asthma—and that a collection of serous fluid in the pericardium often accompanied an obstruction of the lungs, even where the pericardium or heart was not diseased.

"In more than two or three cases where the right lung was extensively diseased, it has been discovered that pulmonary symptoms were mistaken for hepatic; and, in one instance a disorder of the colon was mistaken for a disease of the liver. The detection of these errors is highly important; it will induce us to pause a little before we decide on the seat or nature of the complaint, or prescribe a medicine which may possibly prove injurious." 38

It would appear, indeed, that Dr. Philip's observations on hepatic and dyspeptic phthisis have blinded a great portion of practitioners to the existence of true pulmonary disease. Scarcely a day passes without seeing people labouring under organic disease of the lungs, and yet under treatment for hepatitis or dyspepsia. If there be pain in the right side of the chest, it matters not in what part of the side, no doubt is entertained respecting the liver being the seat of the disease, and mercury is resorted to at once. If there be cough—it is stomach cough. If there be purulent expectoration—it is a sympathetic affection of the mucous membrane of the lungs, which requires no treatment, as the original malady is seated at a distance and must there be attacked! Meanwhile the disease goes on to a fatal termination, and if dissection shews the lungs disorganized and the liver sound, it was still hepatic phthisis, because Dr. Philip has clearly shewn that the original disease disappears in the progress of the symptomatic one, and consequently is not to be seen post mortem. We shall now proceed to some cases.

CASE I. This was a gentleman aged 42, corpulent, intemperate, and with an habitual appetite that was almost insatiable. When Dr. M. saw him he was complaining of cough and dyspnoea, with pain and a sense of weight in the left side, stretching towards the back. Pulse 104—tongue furred, yellow—thirst, restlessness. He was bled, blistered, purged; but four days afterwards, we find him with the same pain in the side—with dyspnoea, palpitation, cough, and purulent expectoration. He was again bled, blistered, and purged, with some trifling relief, and then sent to the country, where he did not stay long. In a few days he returned, complaining of "spasms of the lungs and legs," with numbness and weakness of the lower extremities. In about a fortnight he died.

Dissection. The colon was five inches in diameter, and its coats thickened. The stomach was five times its natural size, descending below the umbilicus. The spleen was of pulpy softness. Coats of the bladder thickened. Lungs hepatized in some places—bronchia lined with a thickish yellow fluid—some calculous concretions in the right lung—a whitish tumour, larger than an orange, of a semi-cartilaginous texture, containing numerous cells and tubercles filled with purulent matter, in the left lung. Four ounces of fluid in the pericardium—and about eight ounces in each side of the chest.

CASE 2.—VIOLENT ASTHMA. "Mr. S.—, æt 54, complains of cough, dyspnoea, palpitation of the heart, pain in the sternum, restlessness and extreme languor; tongue foul and yellow, pulse 110, strong; skin hot and moist: expectoration copious and purulent; bowels open; urine turbid. This gentleman is of a delicate frame, is sallow and emaciated, and, during the last ten years has been subject to frequent and violent fits of asthma, which terminate by copious gross expectoration." 47.

This was on the second of December, and the patient was bled to eight ounces. Next day he was nearly in the same state, and was purged and blistered. We need not go into the diurnal details. The patient died on the 23d of the same month.

Dissection. "Between the tunica arachnoidea and pia mater, a serous effusion, is observable over the entire surface of the brain.

"The substance of the brain when cut into exhibits numerous red points.

"Nearly two ounces of a watery fluid are found in the ventricles.

"A quantity of serous fluid is discovered at the base of the cranium.

"Thorax, cartilages of the ribs generally ossified.

"Lungs, on both sides, adherent to the walls of the chest and to the mediastinum; and, on the left side, to the pericardium.

"Three small portions of calculous matter are found in the middle lobe of the right lung.

"No abscess nor ulceration is discoverable in any part of either lung; but there is a quantity of frothy purulent matter in the cells of the bronchiæ; the lining membrane of these cells is highly vascular.

"Pericardium,—contains about three drams of serous fluid; the internal surface of this membrane is rough, from a number of minute sabulous whitish particles dispersed through its texture.

"Heart,—substance of, natural, but its lining membrane is opaque in different points.

"The opening of the coronary vein is larger than natural.

"Liver,—natural in size and texture, but paler than usual.

"Gall-bladder, contains a thin olive-coloured bile.

"COMMENT.

"In this instance such was the violence of the pulmonary symptoms, that hydrocephalus, the immediate cause of death, was overlooked by the physicians in consultation, and the fatal event was supposed, previously to the dissection, to have been produced by a disease of the heart and lungs; a repetition of such mistakes can only be prevented by an examination of the body after death; this laid open the nature of the complaint, and showed, that our attention should have been directed to symptoms which, though only supervening to the original disorder, were the precursors of the death of the patient.

"Slight head-ach, confusion of ideas, and a sense of fulness in the head were complained of throughout the whole of the attack: a few days before death, the expectoration diminished, this was followed by high delirium, stupor, and the frequent application of the hand to the head, symptoms indicative of cerebral derangement, and produced by the accumulation of blood and serum in this organ; and, was not this accumulation the effect of congestion in the lungs, which, by obstructing the circulation, impeded the free return of blood from the head?" 53.

It appears that this gentleman had frequently recovered from similar attacks of the chest before—hence our author concludes that recovery might probably have taken place in the present instance, had not hydrocephalus supervened.

CASE 3. We shall notice this case, as it illustrates some remarks which we made a page or two back. The patient was a young lady 10 years of age, who, in January 1817, first complained of fugitive pains in the left side of the thorax and corresponding arm, accompanied by palpitation and sense of stricture about the heart, slight cough, and fever. These symptoms yielded to depletory measures—recurred, and yielded—till, at length, the attacks were frequent.

"In January and February, 1818, the pain in the region of the heart was often acute, and always attended with a sense of suffocation, palpitation, and at times, with purulent expectoration and hemoptysis. During the last three months the dyspnoea was permanent, often orthopnoea, and a sense of suffocation, accompanied by pains in the arms and shoulders; there were anasarous swellings of the upper and lower extremities, and of the

face; the tongue was aphthous, pains were frequently felt in the bowels, attended by a mucous diarrhoea; delirium and convulsions closed the scene.

" May 30th, 1818. *Dissection by Mr. Barker.* There is an elevation of the central portion of four of the ribs on the left side of the thorax, and, on this side the pleura pulmonalis and costalis, are adherent.

" The left lung is filled with tubercles and ulcers of different sizes, colours, and figures. Some of the tubercles contain a substance of a cheesy nature, others of a curdy or purulent, the majority are developed in distinct cysts.

" Pericardium, considerably thickened; there is a deposition of coagulable lymph upon its outer surface, which is firmly attached to the diaphragm, in its cavity are found about six drams of a serous fluid.

" The heart is enlarged, and its surface highly vascular.

" The pleura, the left lung, the pericardium and the heart form one crude diseased mass.

" The right lung is less diseased than the left, but it contains two vomica; on this side, the pleuras are closely adherent.

" Liver,—left lobe, enlarged and stretches into the left hypochondre; structure natural.

" Stomach,—two large red patches, irregular in their size are found upon its lining membrane; one of which is situated between the cardiac and pyloric orifices.

" Intestines,—several portions of the small intestines are thickened and highly vascular, and on their mucous surface is observed puriform matter mixed with blood.

" Mesenteric glands,—enlarged, and some contain a cheesy and some a fatty matter." 57.

We are informed by Dr. Mills that, at the commencement of this young lady's illness, and for some time afterwards, " her complaint was considered hepatic, and mercurials were repeatedly exhibited; the pulmonary affection was regarded as secondary, and would, it was supposed, yield to the action of the remedies administered for the removal of the primary malady." Dr. M. avers that chronic inflammation of the bowels was here mistaken for disorder of the liver, and that " this mistake led to the use of medicines calculated to develop tubercles in the lungs, or inflame those which might otherwise have lain dormant." 60.

It is a melancholy reflection, and one calculated to lower our pride, that medicine should sometimes be the cause of mortal maladies when injudiciously administered for diseases not in themselves fatal. Yet we fear this is too often the case. Such a consideration ought to teach us to view with more charity and patience the ridiculed practice of some of our continental brethren—the " *medicine expectante*." Cases like that detailed by Dr. Mills, afford our neighbours fair game for retaliation. It is not, however, so much by activity of remedies that mischief is produced, where symptoms are urgent, as by mistakes in diagnosis. The young lady's case would hardly have been made worse by leeches, farinaceous food, and such means as are calculated to reduce inflammation, either in the chest or abdomen. But a false diagnosis being formed, wrong remedies were administered—and, at all events, the thoracic disease was neglected when it ought to have been the " all absorbing question." The study of auscultation will tend to correct this fatal error of diagnosis in future.

CASE 4. *Passing over two or three cases of no interest, we come to another instance of phthisis, mistaken in its early stage for hepatic affection.*

We shall glance rapidly over the particulars. Miss D. aged 21, had been ill fifteen months. Pain in the right hypochondrium had been (as was said) the first symptom, to which succeeded cough, palpitation, dyspnoea, and hectic fever. "Two country physicians considering this a case of diseased liver, have given calomel in large quantity, and recommended a low diet, and latterly digitalis to abate the hectic." When Dr. M. was called in, there were cough, dyspnoea, perspirations, pains in both hypochondria, frequent and feeble pulse, emaciation, purulent expectoration. We need not detail the subsequent symptoms or treatment. The patient died in a couple of months, when the left lung was found tuberculous and filled with purulent or cheesy matter—right lung studded with tubercles loaded with pus and cheesy matter. The pericardium contained six ounces of water. The great lobe of the liver slightly adhered posteriorly to the parietes of the abdomen and descended rather lower than natural; but was not altered in color or consistence. There was no other morbid structure in the abdomen.

"The dissection was instructive, as it served to correct an erroneous idea entertained with regard to the seat and nature of the complaint which was considered by some eminent practitioners as hepatic, and mercury was repeatedly administered, a medicine highly injurious in scrofula of the lungs.

"The pain felt in the right hyochondre gave rise to the opinion that the liver was the organ principally engaged, and the slight adhesion discovered between its convex portion, and the parietes of the abdomen indicated a low degree of inflammation that had subsisted at an early period of the attack, but the substance of the liver was sound, and the pain in the right side continued for months, this therefore must have depended on the disordered condition of the right lung." 75.

Two or three other cases and dissections are given, all showing the fatal mistakes of practitioners on this particular point; but we shall pass them over. Our author gives us a kind of rambling essay on "LYMPHATIC PHTHISIS"—which is no other than what we call scrofulous or tubercular phthisis—epithets which he thinks objectionable, "because associated with the idea of debility, or of some undefined acrimony of the fluids," and thus giving rise to a "practice wavering and injurious."

"Were I allowed to form an opinion on this subject, grounded on observation and experience, I would say that the scrofulous tubercles of the lungs are lymphatic vessels, or a congeries of lymphatic vessels called glands in a state of inflammation and suppuration, consequently that the epithet lymphatic would be more appropriate, as it at once expresses the seat and nature of the disorder, and directs the practitioner to a rational mode of treatment." 124.

We confess that we do not see so very clearly how a certainty of the fact, that "scrofulous tubercles of the lungs were lymphatic vessels in a state of inflammation and suppuration," would lead us to a rational, or, at all events, to a successful practice. The inflammatory nature of phthisis, in its early stage, has been long advocated—and doubtless is true—but what have we gained by this knowledge when tubercles have arrived at suppuration? Very little, we fear! We shall, however, allow Dr. Mills to speak for himself.

"Obscure in its origin and slow in its progress, lymphatic phthisis is a disease alike insidious and dangerous, and often proceeds to an alarming height without exciting any serious apprehension; in our inquiry, therefore, we should not only take into account the present state but the past history of the patient, such as the healthy or diseased condition of the glands of the neck, axilla and mesentery, the effect of denti-

tion, vaccination, hooping-cough, scarlatina, measles, &c. and never lose sight of the state of the digestive and respiratory organs, for it is clear that visceral obstructions, by giving rise to congestion, irritation and inflammation of the lymphatic system frequently cause lymphatic or tubercular phthisis.

"We daily witness swelling, hardness, pain and redness of the lymphatic glands of the groin, in consequence of the irritation induced by blennorrhagia; the same symptoms arise from the irritation of a chancre on the penis or scrotum, or from the absorption of the syphilitic virus. Inflammation of the lymphatic glands of the upper parts of the legs, thighs, and arms, proceeds from injuries or diseases of the feet and hands; the cervical glands often swell from the application of blisters to the nucha or head, and the axillary, from disorders of the mammae, &c.; these facts are worthy of consideration, inasmuch as they show the excitability of the lymphatics, and the necessity of keeping this system of vessels in a healthy condition, for it is well known that pulmonary consumption is often preceded by swellings and inflammation of the lymphatic vessels and glands of the neck, axilla or thorax; a principal object therefore in the treatment of patients of irritable habits, or of those born of consumptive parents, is to diminish or remove this irritability, by giving tone to the constitution and preserving in a healthy condition the different organs and functions of life. Among the various remedies employed for this purpose, I shall now only observe, that a light, cooling, and moderately nutritious diet is preferable to a full diet of animal food, jellies, soups, &c.; that wine is, for the most part, unnecessary, and often injurious by its stimulating qualities, and that the best remedies are such as are calculated to promote a healthy state of the secretions, particularly of the abdominal viscera.

"I have stated that lymphatic phthisis is obscure in its origin, and of slow growth, there are symptoms, however, by which its approach may be detected, and in some cases, in time sufficient to arrest its progress,—these are, an appearance of delicacy in the expression of countenance, and in the frame of body, a slight cough, or rather hem, generally unattended by expectoration, and seldom noticed by the patient or his friends, and if noticed by strangers, not acknowledged; the pulse is above the natural standard, and easily excited, the respiration is hurried by slight causes, and there is frequent palpitation; a face commonly pale or sallow, is easily flushed, a sense of weight or fulness is frequently felt in the head, accompanied by vertigo or tinnitus aurium, the usual exercises are followed by lassitude and languor, and there is a slow but gradual emaciation.

"As the disease advances, slight fugitive pains and a sense of oppression and weight are occasionally complained of in the chest and aggravated by a deep inspiration, the digestive organs are disturbed and the excretions assume a preternatural appearance, a low irregular fever comes on, indicated by thirst, heat of skin, slight chills, frequency of pulse, and whitish tongue; such is a general outline of the complaint in its first stage, when there is some hope of checking its progress:—in its second or confirmed stage, the symptoms are so prominent and so dangerous, they can neither be mistaken nor removed; it is worthy of remark, that the sputa in tubercular phthisis, are seldom tinged with blood; these tubercles are found in distinct cysts, and being the product of diseased lymphatic vessels and glands, we cannot expect them to contain blood, but we discover a cheesy or curdy matter, varying in color and consistence, according to the intensity and duration of the disorder, resembling the curdy whitish and wheyey matter detected in the lacteal glands of the mesentery when inflamed and suppurated." 127.

We shall give one more extract respecting climatorial and medicinal treatment.

"Among the means of prevention, setons or issues established in different quarters of the thorax often prove highly serviceable, and in detecting some of the more early

signs of this disease as well as the portions of the lungs most affected, considerable aid may be derived from the skilful application of the methoscope, invented by the late scientific and distinguished Monsieur Laennec.

"Clothing sufficiently warm to protect the body from the vicissitudes of the weather is, at all times, necessary. A pure dry air, a serene sky, and an equable climate are often recommended, and no doubt, are very desirable; but where are they to be found?—Every country has its disadvantages; in one, sultry heats and chilling dews; in another, intense cold; in a third, sudden vicissitudes of atmosphere; in a fourth, fogs, clouds, torrents, storms, or earthquakes; or we find that hot suffocating wind the Sirocco, or the cold piercing Bise, or that foul destructive air, the Malaria, or those pestilential vapours that arise from stagnant marshes; in short whithersoever we go, we find some drawback—a something still wanting; why not then, especially when foreign travel and a foreign residence are impracticable, look to our own resources?—in them we may discover what will compensate us for the absence of the brighter skies of more southern latitudes. When the lungs are ulcerated and hectic fever sets in, foreign travel is worse than useless, it is injurious, for it subjects the invalid to cold, wet and fatigue, to many inconveniences and bad accommodation; and when we reflect on the want of almost every comfort in Southern Europe, on the absence of friends and society, and on the certainty of possessing these advantages at home, I do not hesitate to say, that in a well regulated temperature of a large commodious dwelling, situated in the country, and protected from the easterly and north-easterly blasts, better health, more happiness, and longer life will be enjoyed than in France, Italy, Spain, Madeira, or in the isles of the Mediterranean." 129.

RECOVERY FROM PHTHISIS.

We have now to look to the brighter side of the picture—a side which is too generally regarded with scepticism, or rather downright incredulity. Nevertheless, the light of modern pathology has shewn us that tubercular consumption is occasionally cured—and that, perhaps, by the unassisted efforts of Nature. This is proved by dissection, and there are many cases where we have good reason to believe in a cure, without the proof afforded by anatomy. We shall proceed to a cursory examination of those adduced by Dr. Mills.

CASE 1.—Mr.—, aged 32, of a pale, sallow complexion and spare habit, had been losing flesh, strength and appetite for ten months prior to the date of report, (19th October) while a dry teasing cough, attended sometimes with gross, purulent, flaky expectoration, evinced an affection of the chest. Hectic fever was now present—pulse 124, weak and irregular—skin dry—tongue whitish and tender—thirst—progressive emaciation—*pain in the right iliac region—bowels constipated—sense of heat, tenderness and distention in both hypocondria.* A blister was applied to the illiac region, and aperient pills were prescribed. 21st Oct. The iliac pain relieved—the cough troublesome—the expectoration purulent—*fæces dark—urine lateritious.* To take animal jellies; pills of rhubarb and ex. col. comp.; musilaginous emulsion, with tincture of opium.

"Oct. 26th. Cough abated, expectoration not so copious; two or three dejections daily; *fæces*, at one time, scyballous, at another, indicative of vitiated bile; hectic fever diminished, better appetite. Cont. Med.

"Takes chicken for dinner and two glasses of claret.

"Nov. 6th. Expectoration less purulent and not so dark-coloured; fever abated; feels some return of strength and spirits; is uncomfortable in his feelings unless he has two or three full dejections in the twenty-four hours; is obliged to increase the dose of the opening pills; complains of acidity of the stomach; lives in apartments heated to about 56°.—Fahrenheit.

"Pil. Cath. omni nocte.
Haust. ex rheo et magnesia.
Omni mane.
C. Mist. anodyn. pro tussi.

"Nov. 13th Skin now moist and of a more natural appearance; feces more consistent, finds sensible relief after every evacuation; pulse 98; tongue cleaner; expectoration less copious and purulent:—takes two glasses of claret, animal jelly and some white meat daily,—complains of flatulence.

"Infus. amar. cum
Spir. Ammon. Arom.
C. reliqua.

"Nov. 20th Is now able to read and to walk about his room for an hour without fatigue,—pulse 88. Cont. omnia.

"Nov. 24th. Cough and expectoration abated; two or three consistent dejections daily; urine lateritious; sleep refreshing; appetite and strength improving. Cont. omnia." 133.

From this time, the quantity of meat and wine was increased, and the expectoration became diminished. On the 14th December, however, we find that the aperient had lost its effect—and that "*the cough became troublesome, the expectoration gross and copious, the pulse frequent, accompanied by diminished appetite and disturbed rest.*" "The aperient was changed; and, as soon as the bowels were fully opened, the symptoms became moderate, and there was a restoration of strength and spirits." From this time the patient went on to convalescence.

We have given the above case more fully than may seem necessary; but we consider it as a very unequivocal specimen of pulmonary affection, connected with, if not mainly dependent on, the abdominal derangement. The passages which we have specifically quoted, and especially those which we have marked in italics, will, we think, carry conviction to the minds of our readers on this point. And here osculation would have contributed much to the diagnosis between real and symptomatic phthisis—but the stethoscope was not employed. It is true Dr. Mills avers that, during his attendance, "tubercles were at different times thrown up;—the cavities made by the discharge of so much purulent matter must have subsequently healed." We beg leave to doubt these conclusions, in the absence of any auscultic proofs in the living body, or anatomical demonstrations in the dead. Dr. M. is at a great loss to account for the good effects of purgatives in this case: but the difficulties vanish, if we come to the conclusion that the main seat of the disease was below the diaphragm. Dr. M. found, also, that small quantities of claret and nutritious diet, while they improved the strength and spirits, rather diminished than increased the hectic." The following case is still more in point.

CASE 2.—This is headed as follows:—"A Case of Recovery from Phthisis Pulmonalis, in consequence of a Change from a low to a generous Diet, and from sedative Medicines to Wine and Cordials." The title is somewhat ominous to a former article of Dr. M.'s creed, namely, that all

the cases treated of in this volume were "of an inflammatory nature." But to the case before us.

Mrs. ———, aged 49, is (Feb. 20) pale, weak, emaciated—sight imperfect—speech inarticulate—pulse feeble, frequent, and irregular—skin cool and constricted—tongue white—breathing oppressed. This lady has been living on a low diet and on tincture of digitalis for the cure of pulmonary consumption, "under which she has been labouring for many months." the sedatives were discontinued and were replaced by spiced wine.

"Feb. 21st. Was revived by the wine; cough not quite so troublesome, expectoration of a greenish-yellow; breathing less oppressed; no pain in the side or chest; pulse 120; some rest; body constipated; complexion sallow." 130.

Blue pill and colocynth—an opiate emulsion for the cough. Chicken broth and mulled wine. On the 26th, we find her improving on this plan, and three or four glasses of claret were allowed, in addition to animal food. On this system she gradually recovered.

The great imperfection in this case is, the total want of proof that the patient laboured under phthisis pulmonalis. The expectoration, indeed, at one time, is represented as "cream-coloured and sinking in water:" but that is a very inadequate proof of pulmonary consumption. We can spare room but for one more case, and that is headed—

"HEPATIC PHTHISIS.

"Mrs. B——, æt. 21, of a sallow complexion, subject to scrofulous swellings of the neck, and born of parents who have often laboured under diseases of the liver, for three years has been subject to a slight cough, dyspnoea and palpitation, preceded or accompanied by fugitive pains in both hypochondres, occasionally shooting to the shoulders; or by a sense of weight or fulness in the right side; these symptoms have been attended by a low irregular fever, by acidity or flatulence of the stomach, by constipation and a diminished appetite; about a year ago an eruption of the furfuraceous kind appeared on the face, and within the last four months the affection of the chest has become more violent.

"Blisters, aperients, mucilaginous mixtures and anodynes have been prescribed.

"During the last week has complained of pain in the loins and head, of vertigo, loss of appetite and strength:—tongue yellow, fæces blackish, urine lateritious, pain in the right hypochondre and shoulder augmented by pressure, fever, troublesome cough, slight hæmoptysis." 144.

Leeches—pil. hyd.—saline medicines. The mercurial treatment, with occasional leechings and purgations were continued, and partial recovery took place. The following is the commentary of the author.

"This is a case of hepatic phthisis, a formidable disease which requires at the onset a judicious and decided line of treatment; the complaint of the liver was prior to that of the lungs, and being obscure, gave rise to an alarming train of symptoms before it was fully developed or suspected; hence the teasing cough, hæmoptysis and hectic fever, hence, the full display of chronic inflammation and enlargement of the liver with all its attendant symptoms and indigestion, and hence I fear the development of tubercles in the lungs. For the present, the patient is considerably relieved, but phthisis pulmonalis is ultimately to be apprehended. The cough, dyspnoea and palpitation which appeared early in the history of the case served to mark the lurking and primary disease of the liver, and, un-

fortunately, improper or frivolous remedies were administered, whereas, had just views been taken of the complaint at its commencement, and efficient means employed to arrest the progress of low inflammation of the liver and correct its morbid actions, have we not reason to say that the progress of disorder in the lungs might have been prevented? And this appears to be the useful practical question to which the case gives rise.

"On inquiry, I find, that this lady died in the county of Armagh of pulmonary consumption, in the year 1820, that is four years after the above illness." 146.

This brings us to the conclusion of the first half of the volume, embracing diseases of the trachea and lungs. The other half embraces affections of the heart, and will require a separate article. We accord to Dr. Mills the meed of zeal and industry—and although we do not carry our confidence in pathology to the same extent as he does, yet we venture to say that we attach to its study all the importance which it deserves. The value of some of the cases in this volume is evidently much diminished by the inattention to physical signs, where the nature of the complaint was not revealed by dissection. Dr. Mills is surely not too old to add to the stock of knowledge which he already possesses—and which is large—by the cultivation of mediate or immediate auscultation.

VII.

AN ESSAY ON THE MECHANISM OF PARTURITION, FROM THE GERMAN OF C. F. NAEGELE, PROFESSOR OF MIDWIFERY AT HEIDELBERG. By *Edward Rigby*, M. D. 12mo. pp. 166. Lond. 1829.

THE process or mechanism by which Nature, in ordinary or common cases, accomplishes parturition, was for a long period of time involved in great obscurity; and the practitioners of midwifery, who were often right in their mode of managing extraordinary and difficult cases, were continually doing wrong in treating those that were simple and natural. The error committed was usually that of interfering with nature, and endeavouring to hasten delivery; and this interference was dictated by the unnecessary fears of those who were not only ignorant of the true position of the fetus in utero, but of the direction of the head as it passes through the pelvis, and of the powers by which it is compelled to descend.

It might be supposed that Mauriceau, who possessed an acute and investigating mind, and who had very extensive opportunities of observation, would have discovered the true position of the fetus in utero, and of the head at the time of birth, but he swerved not from the opinion which had been handed down by tradition, and does not appear to have entertained a single doubt of its accuracy, and thus his authority tended to confirm a belief which, as it was erroneous, could not lead to right practice.

In 1742, an opinion was promulgated by Fielding Ould, of Dublin, which, though it did not teach the exact truth respecting the mode of presentation of the head, yet approached very near to it. In his "*Treatise of Midwifery*," he informs us that, being at a labour at Paris, which had been

expected to be soon over, but in its progress grew very tedious, it was remarked by the attendants, that the head of the child was so disposed, as for its chin to be placed in the direction of its shoulder, and this was supposed to indicate a preternatural position of the head. Ould thought otherwise, and maintained that this was the right direction, to confirm which, he says, "I made the strictest examination of every woman which I either delivered or saw delivered during my continuance at Paris, which perfectly convinced me of the truth of what I suggested."

This suggestion of Ould led other practitioners of midwifery to a more close investigation of this important subject, and it was soon ascertained, that if the position described by Ould was not quite right, it was not much wrong; and from this time, not only did a more simple and excellent method of managing natural labours begin to be adopted, but the practice of midwifery with regard to preternatural and instrumental cases underwent a great improvement. A stronger proof can hardly be required to demonstrate the benefits which are likely to accrue from establishing facts, and deducing practical rules from accurate observation.

Dr. Rigby, the translator of Professor Naegelè's Essay on the Mechanism of Parturition, observes very truly, in his preface, p. ix, that—

"An intimate acquaintance with the mechanism of child-birth is of the highest importance to the accoucheur; it is the foundation on which all his practical knowledge must be grounded; for without it he can have no positive data, from which he may be enabled to draw indications for the course of treatment necessary to be pursued. Uncertain whether any circumstance that may present itself to his observation is to be regarded as unusual, or merely as the result of changes inseparably connected with this natural process, he is unable to draw the important line which is the boundary between health and disease, and to decide in what cases he may confidently leave nature to her own powers, or where and at what period it will be necessary to bring in the aid of art to her assistance.

"An accurate knowledge of the mechanism of child-birth is indispensably necessary in performing the various operations of midwifery, more especially in applying the forceps and in turning; the former, which is one of the simplest and most valuable operations known, becomes in the hands of an ignorant practitioner not less cruel than dangerous; the latter, of itself more difficult and complicated, and infinitely more dangerous to the child's life, depends for its success solely on an intimate knowledge of the relations between the maternal passages and size of the child, as well as on the state in which nature is to assist or retard the completion of this operation.

"An accoucheur who is not well acquainted with the mechanism of parturition, may be fairly said to be in the dark. He can only be compared to the sailor, who, putting to sea without a chart, expects to be blown across the wide ocean to the place of his destination, ignorant of the nature and situation of the shoals and sunken rocks, that may interrupt his course."

And being aware that in his own country, there was no single work which distinctly treats upon this mechanism, he has published in an English dress Naegelè's exact remarks.

Professor Naegelè has had a very extensive practice in midwifery, and the observations with which this little work abounds, shew clearly that he has taken great pains in investigating all the phenomena of natural parturition. *He describes the descent of the head through the pelvis as it occurs in four several positions, to which number he limits the varieties*
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differing in this respect from Baudilocque, and the French writers, who describe six.

In detailing the particulars of these four positions of the head, and in enumerating the means by which each is to be detected, the author introduces many useful practical remarks, the result of personal experience, which are well deserving the attention of the young practitioner. In England, especially, accoucheurs are too often inattentive to the mode in which the head of the child comes forward during the early part of labour; and it is by no means improbable that they often embarrass themselves in consequence of this want of care. If the true position of the child's head in the first stage of labour were accurately made out, it would often lead to a more correct prognosis as to the probable duration of the labour. The obstetrician would often be spared the necessity of remaining hour after hour in unnecessary attendance, and would often escape the more unpleasant charge of having absented himself, and neglected his patient. At a time when his services were positively required, and anxiously, but in vain, invoked. A more exact inquiry into the position of the head would likewise prevent those occasional mischievous consequences which result from the use of instruments; for we have reason to believe, that not unfrequently the aid of instruments is employed, or rather attempted, when the head of the child is in no fit position for their use, to the danger of the mother, and the disgrace of the practitioner; and we have had, on other occasions, reason to lament that the judicious use of instruments had not been more timely resorted to, for we have known them delayed so long as to fail altogether in producing any beneficial object.

Professor Naegelè has not confined himself to an explanation of the mechanism of labour in head presentations, he has likewise detailed the process in cases of nates presentations, and we are inclined to think, that his observations on these are more interesting than those which relate to the presentation of the head.

On the whole we consider this little book deserving of being well studied. We must confess that the student will not find in it all the attraction of language which tends to make study inviting. It is rather a *dry* book; the German idiom is too much preserved in the translation; but the student will be amply repaid for the pains he bestows upon it, by the solid information he will gain.

VIII.

THE STUDY OF MEDICINE BY JOHN MASON GOOD, M.D. F.R.S. F.R.S.L. MEM. AM. PHIL. SOC. AND F.L.S. OF PHILADELPHIA. CONTAINING ALL THE AUTHOR'S FINAL CORRECTIONS AND IMPROVEMENTS. Third Edition, with much additional modern information on Physiology, Practice, Pathology, and the nature of Diseases in general. By *Samuel Cooper*, Surgeon to the King's Bench and Fleet Prisons; Surgeon to the Forces; Author of the Dictionary of Practical Surgery; Honorary Fellow of the Academy of Natural Sciences at Catania; &c. &c. In five vols. 8vo. London, 1829.

[COMMENTARY THE FIRST.]

THE work before us may now be considered as a national one. It is highly improbable that any thing like a competitor can venture into the literary market for many years to come. The learning and research of Dr. Good, in medicine, and of Mr. Samuel Cooper, in Surgery, must deter even the most sanguine individual speculator from embarking in any similar undertaking for the next quarter of a century—and it does not seem probable that a joint-stock company, for the production of an "ENCYCLOPÆDIA MEDICA," shall soon start into existence in this country, notwithstanding the rage for this kind of adventure. No work in the English language has ever soared higher in the regions of medical literature and research than the "STUDY OF MEDICINE,"—and none, perhaps, has presented such astounding and unexpected chasms in modern pathology. Whether these chasms have been all filled up by the last emendations of the lamented deceased author, and the still more recent labours of the learned editor, will be seen as we proceed in our commentaries. As far as surgery is concerned, there can be no doubt; but it certainly does appear extraordinary to more than ourselves, that a physician was not associated in the editorial emendations. It is well known that we have always discountenanced the idea of there being any real or natural distinction between medicine and surgery; but custom having forced a distinction in practice, it is evident that the physician becomes more conversant with those diseases which are always under his care, than with those which are taken in charge by the surgeon; and although the surgeon meddles more with physic than the physician with surgery, yet it would be absurd to suppose that he studies purely medical cases with the same attention as the physician, or that he has the same field for observation. It is true that Dr. Good was himself a surgeon till within a few years of his death—but then he was a GENERAL PRACTITIONER, in which capacity his practice was ten times more medical than surgical. We grant too, that it would be difficult to pitch on any *pure surgeon* so well calculated for the task of a *medical* editor as Mr. Samuel Cooper; yet still we think that a prejudice will lie against the management,—whether well or ill founded, is another question. It will tend to diminish this prejudice when it is known that the original author had revised the whole work before his death—and that the present editor is peculiarly qualified to give to the *surgical articles* all the development of which they are susceptible. The

same observation will apply to the anatomy and physiology of these volumes—but it will probably be shewn that the pathology of diseases, as apparent in this great work, has not been brought to the level of our actual or supposed knowledge at the present day. Perhaps a degree of the same deficiency will be seen in the therapeutical portions:—we do not mean a deficiency of therapeutical agents—for Dr. Good has not been sparing in the number which he has placed on his bill of fare—but in the discrimination of the valuable from the valueless articles. We believe Dr. Good was never in extensive practice—and that his practice, such as it was, had been confined to a very limited field of observation, topographically speaking. He commenced medicine at a late period of life too—and all these circumstances, together with his ardent pursuit of philological and poetical studies, may readily account for the exuberance of literature and the meagreness of practical information (as far as his own person was concerned) in the splendid work before us. In this respect the “STUDY OF MEDICINE,” forms a striking contrast with Dr. Parr’s “MEDICAL DICTIONARY,”—every page of which discloses the experienced and observant practitioner—while there is not as much erudition in two large quartos of the Exeter physician, as in one of the smallest octavos of the London Philologist. Had Dr. Parr possessed the *learning* of Dr. Good, or Dr. Good, the *knowledge* of Dr. Parr, their works would have been invaluable! But it is doubtful whether a union of the two qualifications is ever to be expected in the same individual. POPE indeed has invested MILTON with the united qualities of Homer and Virgil—but medical *knowledge* is only to be obtained by long and close observation of disease at the bed-side of sickness—while medical literature can only be cultivated to a high degree in the library.

We have characterised the work before us as a national one—and as such it can be perfected and kept in a state of perfection only by national contributions. Successive editions will be demanded—and it will be the duty of future editors to collect the scattered rays of knowledge, from time to time, and concentrate them in this luminous focus. It has occurred to us that we might contribute to the utility of the work by taking a survey of those portions of it which we conceive to be open to criticism, or behind the van of pathological or therapeutical science. In doing this we hold out an invitation to our brethren in general to contribute any observations or remarks which their experience may suggest on any points of doctrine or practice—which communications shall be acknowledged or not, according to the option of the contributor.

It is not our intention to notice the physiological, historical, or descriptive portions of this work. Physiology is so completely in its infancy, that criticisms would be merely heaping conjectures on conjectures. Neither need we notice the nosological arrangements which we consider in much the same light as poetry or other works of the imagination. We believe Cullen’s system of nosology to be just as good as any that has preceded or succeeded it—and if this be the case we see no necessity for going to school again to learn a new set of hard names for those things that are familiar to us by their old titles. The first article which we shall notice in this work is the 7th species of genus V, order I, class I, viz :—

LIMOSIS DYSPEPSIA.

Considering the importance of this complaint, and the number of volumes which have been written on it, the article INDIGESTION is developed in this work very imperfectly—and indeed leaves the pathology, etiology, and treatment of the protean malady several years behind the current of medical literature on this particular subject. With the exception of a few lines in reference to a doctrine of Dr. W. Philip, neither the standard work of that gentleman, nor the works of Paris, Uwins, Johnson, or other modern writers on indigestion, are ever laid under contribution, or even referred to, except in a foot note at the end of the article. If the author had been a man who, from great experience and practical investigation, was capable of taking a lofty stand, and producing an original monograph on the intricate subject of indigestion, he might have been justified in rejecting all authorities except his own. But in this article there are few original ideas. It is a compilation—and, *as such*, it should have exhibited a fair epitome of the doctrines and practices of modern as well as the older writers. It has not done so, and the article is consequently incomplete. The following passage exhibits the pathological doctrine of Dr. Good, as respects dyspepsia. It has also more tendency to originality than most other parts of the article.

“The grand proximate cause of the three preceding species is debility of the stomach, whence, among other evils, an impaired secretion of gastric fluid. In the present instance, the debility is not often confined to the stomach, but extends to the intestinal canal, and the collatitious viscera, as the mesentery, the spleen, and the pancreas, especially the liver, in which it most frequently commences; and hence another cause of the great complexity of this disease.

“The debility, and indeed torpidity, of the intestinal canal is evident from the habitual costiveness which so peculiarly characterizes this affection. Whether this be direct or indirect, intrinsic or sympathetic, as harmonizing with the weakness of the stomach, it is not easy to determine: but nothing can be a stronger proof of the great inactivity of the intestinal tube, from whatever cause produced, than the feebleness of its peristaltic motion, notwithstanding the acrimonious matters that are so frequently diffused over its inner surface.

“The imbecility of the liver is equally obvious in most cases, from the small quantity of bile that seems to be secreted, or its altered and morbid hue, as evinced by the colour of the fæces, which, in some instances, are of an unduly dark, and in others of an unduly light tint; and possibly from the inactivity of the intestines themselves, whose peristaltic motion is conceived by Dr. Saunders and other pathologists to be, in a great measure kept up by its stimulus.” Vol. I. p. 190.

From this pathology, then, we find *irritability* or *irritation* wholly excluded—though every one, at all familiar with the disease, knows that the mere debility of the stomach and intestines forms but one feature of the complaint, and that the least important one—or, at all events, the least distressing. The author, indeed, is inconsistent with himself in the very next page. While admitting, with Dr. Philip, that when sympathetic disease (as in the lungs or brain) has taken place, the original malady in the stomach generally subsides, Dr. Good remarks:—

“And not unfrequently we can very advantageously take a lesson from this peculiar march of nature; and by exciting an *artificial irritation* in some neighbouring and less vital part, can draw off the *morbid action* into such quarter.” 191.

Thus, then, the grand proximate cause was stated to be debility, and not a word was said of irritation; yet, in the next page, we find that one of the ways in which this *debility* may be cured, is to excite an *artificial irritation* in another part, and thus draw off *morbid action*, in other words, irritation or inflammation, from the stomach itself.

We see, from these passages, that there is a fundamental error in the pathology or proximate condition in digestion, whether we take the views of Philip, Abernethy, Armstrong, Abercrombie, Paris, Uwins, or Johnson. It may be irritation, it may be inflammation—but, at all events, it is not simply debility, as laid down by the author of this work. The defect in the pathology necessarily leads to a most dangerous error in practice. The antiquated doctrine of debility has carried millions to their graves, and driven tens of thousands mad. It led to the farrago of stimulants and tonics, when the stomach was in a state of *irritability* as well as *debility*, instead of low unirritating diet, and tranquillizing medicines.

The whole etiology of this multiform disease is comprised within somewhat less than 30 lines! We shall give it here.

“The common causes of this imbecility, whether confined to the stomach, or co-extensive with the associate viscera, may be contemplated under two heads, *local and general*: under both which they are still further resolvable into the two opposite extremes of deficient and excessive stimulation; and consequently into a divergency of any kind from that medium of excitement and activity upon which health is made to depend.

“The local remote causes are, a too large indulgence in sedative and diluting substances; as tea, coffee, and warm water, or similar liquids taken as a beverage; or an equal indulgence in stimulant and acrid materials, as ardent spirits, spices, acids, tobacco, whether smoked or chewed, snuffs, a daily habit of distending the stomach by hard eating or drinking; or a rigid abstemiousness, and very protracted periods of fasting.

The general remote causes are, an indolent or sedentary life, in which no exercise is afforded to the muscular fibres or mental faculties. Or, on the other hand, habitual exhaustion from intense study, not properly alternated with cheerful conversation; becoming a prey to the violent passions, and especially those of the depressing kind, as fear, grief, deep anxiety, immoderate libidinous indulgence; and a life of too great muscular exertion. *Perhaps the most common of this latter class of causes, are late hours and the use of spirituous liquors.*” 194.

We much doubt the truth of the last sentence, which we have marked in italics. Among the upper classes of society, where late hours are kept, there is no immoderate use of spirituous liquors—and among the lower classes, where gin, rum, or whiskey is taken to excess, late hours are out of the question. A pretty extensive range of observation would induce us to place *moral emotions* at the very head of the list of remote causes of dyspepsia—especially among the upper classes of society. And whoever has attentively examined into *causes*, even in the humblest walks of life, will find abundant sources of mental anxiety operating *there*!

We agree with the talented author, that under whatever shape the disease appears, we are to recommend a subtraction of the *causes*. Yes! It is very easy to tell a man to—

“Pluck from the memory a rooted sorrow”—

but it is not quite so easy for the physician to—

“Purge the foul bosom of that perilous stuff
That weighs upon the heart.”

Over the *physical* causes, indeed, of dyspepsia, the patient has considerable command, under the guidance of a judicious practitioner; but over the *moral* causes he can exert but trifling sway!

One of the most lively passages in this article is that on watering places, as residences for those who have suffered from protracted study.

“It is to characters of this kind, perhaps, more than to any other, that the amusements of a watering place promise ample success; where the general bustle and hilarity, and the voluntary forgetfulness of care, the novelty of new scenes, and new faces, and new family anecdotes, and the perpetual routine of engagements that fill up the time with what would otherwise be trifles and frivolities, reverse the mischievous order and monotony of the past, break the sturdy chain of habit and association, and give leisure to the worn-out sensory to refresh itself.” 195.

To this passage we see no objection; but we are by no means convinced of the solidity of the next precept laid down by the author, when the victims of a “town life of fashionable follies,” are recommended to “*a total retreat from the world.*” But let Dr. G. speak for himself.

“Where the same effect has proceeded from a town-life of fashionable follies and dissipation, nothing is more common than to recommend a like change of residence. But in this case, though it may be a change of residence, it is not a change of life; and hence it is too often made without any benefit whatever. *A total retreat from the world*, the unbroken seclusion of a remote hamlet, the sober society of a few intimate friends, simple meals and early hours; instead of close and heated rooms, crowded and motley routs, costly feasts and midnight madrigals, are what are specially called for in this instance. 196.

The author properly remarks, that “the habitual use of hard eating and drinking must give way to a wholesome plainness of diet,” though he is afraid, that, “not a little mischief has often ensued from rigidly compelling the man who is suffering from a long habit of the former, to *abandon this habit at once*, and to run to an extreme of abstemiousness.” Now is it not wonderful that the acute mind of Dr. Good should not have seen that, in the very same page, he recommends the patient to run into the most opposite extreme that can be imagined—“*a total retreat from the world*,” after long habits of “motley routs and midnight madrigals?” The inconsistency here is very glaring—and the advice is not very judicious. Our author says:—“A spare diet, though often recommended, is rarely found of service, and very generally adds to the disease.” But Dr. Good seems not to be acquainted with the severe forms of dyspepsy, where the sensibility of the stomach is so much augmented, that a spare diet at the beginning is essential to the cure. When, indeed, the stomach is able to bear the presence of food and drink without inconvenience, and to dispose of it without much difficulty, there can be no possible objection to fuller diet; but, till then, we apprehend that a spare diet will be found the best preparative regimen.

The remainder of the article is occupied with common-place remarks on bitters and tonics—but no where do we observe any enlightened view taken of this highly important disease. Its inflammatory or morbidly-irritable character is passed over by Dr. Good without notice—and the Editor only appends a few remarks from Drs. Abercrombie, Annesley, and Armstrong

on inflammation and organic changes in the stomach. We are of opinion that Mr. Cooper could have made great and useful additions to this article—and that he might have quoted, with more advantage to his readers, from recent medical writers than from the Edinburgh Review. It may be very witty and diverting in the Edinburgh reviewer, to deal out satirical strokes at the doctors about the “simplicity of savages”—“Prince Rasselas”—“Nebuchadnezzar”—the “flesh-pots in our kitchens,” &c.; but we question the wisdom of introducing such non-professional irony in the midst of a grave, systematic work on medicine. We are disposed to think Mr. Cooper’s good sense will induce him to replace this passage from the Edinburgh Review, in the next Edition, by some more solid instruction from the stores of medical literature, to which he has ready access, and from which he is so dextrous in gleaning the wheat from the chaff.*

* In justice to Mr. Cooper, we shall here insert a portion of the passage to which we have alluded above.

“The systems of dietetics offered to the world are innumerable, and marvellously contradictory to each other. Some, looking with an evil eye on the refinements of society, would bring us back to the simplicity of savages, and have us live ‘according to nature.’ Though, when we ask, with the Prince Rasselas, what it is to live according to nature, we are sure to meet with no more satisfactory answer, than what was vouchsafed to that noble inquirer. The truth is, however, that our bodies would be as little bettered as our minds, by going back to the state of savages; for it is now ascertained that savages are universally short-lived, and subject to sudden and violent diseases. Population increases slowly amongst them, and the healthiest and strongest of them, if compared with the average of well-fed civilized Europeans, will be found inferior both in strength and health. Some theorists again would have us live solely on animal food, and assert, that the human viscera bear vegetables ‘only in a grumbling way; while others would reduce us to the diet of Nebuchadnezzar, and not leave a flesh-pot in our kitchens. The different notions on dietetics by no means end here. Some sage doctors will never allow us to fill our stomachs, and some hold that they should never be altogether empty; some reduce the whole mystery of nutrition to a skilful exhibition of successive stimulants, and others to the exclusion of all that can interfere with the balsamic simplicity of the insipid chyle; some hold all fermented substances pernicious, and others think fermentation the best preparative for digestion. But as the judicious critic, to whom we are indebted for the above reflections, has observed, how is it possible to say what is absolutely the best diet for human beings, when we consider under what an infinite variety of different habits such beings are found to live in health and vigour, and by how many opposite causes their health and vigour are impaired? The same diet that is sanative to one, whose digestion has been weakened by scanty and penurious living, cannot possibly be suitable to another, who has suffered from a long course of repletion and excess. The regimen that is most wholesome for youth is not likely to be well fitted for old age; nor can that which answers for the active and laborious be proper for the studious and sedentary. Nay, your dry and austere subject plainly requires a different regimen from that of the plump and succulent. A lover should not be dieted as a miser; nor a champion of the fancy like a prime singer at the opera. Every man differs from every other in some of the important attributes of age, habit of body, occupation, temperament and disposition, to which may be added climate; so that all rules of diet must plainly require innumerable modifications to accommodate them to the condition of those classes of persons, even if it were possible to reduce them to certain classes.” 214.

IX.

THE MORBID ANATOMY OF THE BOWELS, LIVER, AND STOMACH, ILLUSTRATED BY A SERIES OF PLATES FROM DRAWINGS AFTER NATURE, WITH EXPLANATORY LETTER-PRESS, AND A SUMMARY OF THE SYMPTOMS OF THE ACUTE AND CHRONIC AFFECTIONS OF THE ABOVE-NAMED ORGANS. By *John Armstrong*, M. D. Lecturer on the Principles and Practice of Physic, and Consulting Physician to the London Fever Hospital. Fasciculus III. 4to. pp. 32, with Plates. May, 1829.

THE zealous and talented author of the work before us goes on with vigour in the prosecution of his original design, which is—

“First, to classify the leading Affections of the Stomach, Bowels, and Liver, so as to present them in something like a natural order; secondly, to give Delineations and Explanations of the most important appearances in their Morbid Anatomy, as displayed in the various textures which compose those viscera; and, lastly to connect the diseased condition of such textures with a Summary of the Symptoms by which its existence may be most certainly recognized.” 71.

Dr. A. proceeds to remark that inflammation, tubercle, fungus, scirrhus, and melanosis are all concerned in the morbid anatomy of the bowels.

“Inflammation of the Serous membrane of the Stomach only occurs now and then, and is mostly conjoined with Mucous Inflammation of that Viscus; whereas Inflammation of the Serous membrane of the Bowels is very frequent in this country, and is, in the majority of examples, unconnected with Inflammation of the Mucous texture. Fungus and Scirrhus, on the contrary, often occur in the Stomach, but Tubercle is rarely found there. Again, Scirrhus and Fungus, but more especially Scirrhus, are very seldom met with, according to my observations, between the Duodenum and the Rectum. We hear now-a-days a great deal, not only about alimentary engorgement of the Duodenum, but structural derangement of that portion of the Intestines. But who, upon an examination of bodies after death, ever found any crudities in the Duodenum? Is it not invariably empty? And, as for structural derangement of the Duodenum, if we except its *occasional* connection with Fungus and Scirrhus of the Stomach, or with Simple Inflammation, it is less subject to disease, if I might speak from my own dissections, than any other portion of the Bowels. It is common, too, to read of Scirrhus of the Rectum, or Scirrhus-contracted Rectum, but I have only seen two instances of genuine fibro-cartilaginous Scirrhus in that situation; the other examples, which seemed to be such at first sight, having turned out, on a minute inspection, mere thickening of the Cellular and other tunics of the gut from the fibrinous effusion of Simple Inflammation, which is the cause, I believe, of most of the permanent Strictures of the Rectum, as it is of those in the Urethra. When true Scirrhus does take place in any part of the Bowels, it commences in the Cellular membrane, finally working its way to the other coats; and the same observation is as forcibly applicable to Fungus, and, with one exception, also to Tubercle, which so often is attached to the Bowels of young cachectic persons.” 72.

Dr. A. has found tubercle in the serous membrane of the bowels under three modifications:—first, as small milary points, semi-transparent and firm—secondly, as uniformly opaque bodies, of a larger size, and nearly of the colour and consistence of the kernel of the ripe horse-chestnut—and,

lastly, as soft white substances, not unlike cut portions of the medullary matter of the brain. The first and second modifications are seated in the cellular membrane subjacent to the serous one; and likewise exist in the same texture which connects the mucous to the muscular coat of the intestines; but the soft *medullary* variety appears to be formed, in general, at the free surface of the serous membrane itself.

"One of the most enlightened pathologists of the age, Dr. Allison of Edinburgh, seems to think that Tubercle is one of the products of inflammation; and certainly this variety of Tubercle, if such it may be fairly considered, would give a strong colouring to that opinion. But then, it might be justly asked, if Tubercle be the mere product of Inflammation, how does it happen that we so often see the remains of Inflammation, Acute and Chronic, without any vestige of that body? At all events, therefore, if Inflammation be connected with the origin of Tubercle, some other condition must concur in the human body, since Inflammation simply of itself is not adequate to produce the effect in ordinary cases, even where the texture of the part, and the age of the patient, are the most favourable for its development. Moreover, Tubercle is often deposited in minute specks on perfectly transparent portions of Serous membrane, which, in many cases, only appear to become distinctly inflamed, when the Tubercles have so enlarged or multiplied as to operate as irritants to the part. But leaving this as a point well worthy of further inquiry, it may be remarked, that authors have differed in their classification of Tubercles; some contending, like Bayle, that the milary is a distinct variety; and others, like Laennec, that it is merely the germ of the rest. In certain cases we find the lungs studded with milary Tubercles, nearly of the same size and character throughout, as if they really were distinct; while in others, we find some in the milary state, some progressive, and some mature, as if they were the same in kind, but at different stages. Again, in one case, we shall find, that Tubercles are apparently composed chiefly of albumen or fibrine, in another, of an ill-conditioned curdly substance, almost like cheese, and in a third, calcareous matter is discoverable; but then in one and the same case, we occasionally detect all these appearances, as if they had been effected by successive changes in Tubercles originally of one nature. All the facts, indeed, which have come under my own eye, would incline me to the opinion, that the milary Tubercle is the original form of which the rest are only modifications; but as I am acquainted with men whose opportunities have been more extensive than mine, and who have come to a different conclusion, I must wait for a more enlarged experience and a more laborious research, before I satisfactorily make up my mind on this subject. Nature is full of mysteries, and doubt is not only a natural state of the mind, but very desirable in the prosecution of the sciences, because it leads from one inquiry to another, by which the truth is often at last revealed." 73.

Melanosis is another peculiar deposit, so different in its sensible qualities from any of the products of inflammation, that Dr. A. cannot refer it to that cause, nor, indeed, to any known condition of the solids or fluids. In one case which our author saw, it was spread like so much paint between the serous and cellular texture, without any concomitant sign of inflammation:—in another, it was contained between the serous membrane and another layer of lymph, so that the bowels looked as if they had been dyed with very black ink. As far as his own experience goes, melanosis always occurs in ill-conditioned subjects, and especially those addicted to spirituous potations.

"In regard to Simple Inflammation of the Serous membrane of the Bowels, it generally leaves very distinct traces, among the most remarkable of which may be enumerated injection of its capillary vessels, thickening opacity, pulpiness, and easy separation from the cellular texture subjacent, together with an effusion of the lymph and serum. We know too

little about the first causes to be enabled to note the series of phenomena which primarily arise in Inflammation; but redness of those capillaries which are generally supposed to convey a colourless fluid in the healthy state, is one of the most manifest signs at an early stage, and effusion certainly and soon follows. That portion of effusion which takes place from the free surface of the Serous membrane into the cavity of the abdomen is manifest at first sight, and therefore has been deemed either the sole or most important one; but serum and lymph are poured into the connecting cellular texture and much of the thickening, opacity, pulpiness, and readiness with which the Serous coat can be separated from the rest, is dependent upon this deposition, this interstitial blending of serum and lymph, as any one may satisfy himself by a critical examination of a portion of inflamed intestine. The red injection of the Serous membrane of the Bowels has nothing peculiar in its appearance, being mostly arborescent, sometimes intermixed like network, and occasionally dotted in some parts. This injection has been supposed to exist in the arterial capillaries; but whatever may be the case during life, I am satisfied that it is, after death, chiefly seated in the venous capillaries; for, on a minute inspection, the small ramifications of the arteries may be seen empty, traversing the intermediate portions of intestine, like so many transparent lines. The degree of the redness is ultimately influenced by the quantity of the secretion, being greatest in those cases where there is the least serum and lymph. One of the principal differences between the aspect of Acute and Chronic Inflammation is, that the latter is considerably darker, while the larger branches of veins, communicating with the smaller, are considerably more dilated. It has been generally supposed, that the serum and lymph are simultaneously separated from the blood in Inflammation of the Serous membranes; and that the serum, being partly or wholly absorbed, the lymph either floats in shreds in the remaining fluid, or is deposited on the free surface of the membrane, when little or no fluid is found. But in some examples of Acute pleurisy and peritonitis, which terminated very rapidly, the lymph was effused in the first instance, while in those cases which had been more protracted, the effusion of serum was generally considerable; so that it has appeared to me most probable, that at all events, the copious separation of serum does not occur at the very commencement, but towards the middle or more advanced stage, and this opinion accords with some experiments made by my friend Mr. Cocks on lower animals. Early and free venesection materially checks the effusion from acutely inflamed Serous membranes; and the lancet, at this period of such cases, being employed more boldly in this country than on the continent, may perhaps be the reason why we so seldom, in Acute Pleurisy, for example, see those large effusions described by Laennec and others; indeed I cannot help suspecting, that in some of those instances a Chronic Pleurisy had preceded the Acute, and it is a remark worthy of remembrance, that such an occurrence is by no means uncommon, both in Inflammation of Serous and Mucous Textures. The effusion of Serum, however, is usually more abundant in Inflammation of the Pleura, than of the Peritoneum, if we except some of the cases of Peritonitis which occur in the Puerperal state, and some Chronic ones which terminate in decided Ascites. When the fluid drawn from the abdomen of dropsical patients is turbid from the presence of albumen or fibrine, which is easily ascertainable, the case is connected with Inflammation of some portion of the Peritoneum; but when the fluid evacuated is perfectly transparent and straw-coloured, it affords a strong presumption, that some great organic affection exists in the liver, or elsewhere. No doubt what we abstractedly term Dropsy is often the result of Inflammation, and much good has arisen by attempts to refer Dropsy, a mere consequence, to its true causes;* but the doctrine of Inflammation is unquestionably pushed too far when it

* * Among the more recent publications on the inflammatory nature of dropsy, none will be found to contain more useful matter than that of my friend Dr. Ayre.

is made to embrace every modification of dropsical disease, which in the aged is so frequently occasioned by organic derangement of a most dangerous kind, that we might to them apply the language of Aretæus, *ab ipso pauci liberantur, idque felicitate, ac deorum potius quam artis auxilio*. If, however, I might digress for a moment, one variety of Inflammation, namely, that of the inner lining of the arteries and veins, is oftener connected with dropsy, than even most of the advocates of the phlogistic hypothesis are aware; at least I have so repeatedly witnessed it, that in every fatal case of dropsy, I would advise an examination of those vessels, that we may be able thereby more fully to elucidate this point of pathology." 76.

Pus is occasionally secreted from the serous membrane of the intestines—and, the adhesion of the different coils is a common phenomenon, where the inflammation has been chronic. Dr. A. has never met with an instance of effusion of blood from the inflamed serous surface.

"A very peculiar condition of intestine is occasionally found, which might, perhaps, be appropriately termed Hemorrhagic; the Mucous, Cellular, Muscular, and Serous membranes being all most excessively injected by blood of a dark rich purple colour; yet even in such cases I have never known any blood to exude from the Serous membrane, though copious Hemorrhage generally takes place from the Mucous one. This peculiar condition of intestine, so far as I have observed, never occurs in Common Fever, but is the occasional attendant of Specific Fever, as defined in the Preliminary Remarks; and in the cases which were fatal, I have always found it combined with a very loaded state of the capillaries of the Mucous membrane of the Bronchia, which was at the same time besmeared with a morbid and tenacious secretion. This circumstance may account for the singular colour of the intestine, as it would prevent the venous blood from undergoing the natural change in the lungs, so that, in fact, a black blood circulated in the arteries. But if I have never known an instance in which blood was poured out from the free surface of the Serous membrane in a state of inflammation, I have examined several bodies where it was effused into the cellular membrane beneath, in the form of small ecchymoses, and in the Hemorrhagic intestine, have occasionally seen it, as a fluid gore in the cellular membrane, flowing out abundantly, when the gut was incised. Indeed, after the fatal termination of severe cases of Bronchitis, particularly of a Specific character, it is not uncommon to find the blood fluid, a fact of some interest in questions of medical jurisprudence.

"Medical writers have justly made a distinction between gangrene and sphacelus, the circulation, animal heat and sensibility all remaining in the first, but not in the last, the one being the threatened, the other the actual death of the part. In two cases, a portion of the gut was so flabby and lacerable, as to indicate that sphacelus had occurred there, though no acrid poison had been taken. Where intus-susceptio had proved mortal, the implicated portion of intestine exhibited all the gradations from the most intense injection to the gradually approaching, and, at last, completely established appearance of gangrene, in which the gut is very dark, all vestige of injection being lost in the local and extreme accumulation of blood. But, in ordinary cases of Sero-Enteritis, death happens before the occurrence even of gangrene, from the influence which the inflammation has on the remote parts of the body, particularly the nervous system, lungs, and heart; an influence which we vainly attempt to denote by the term constitutional or sympathetic disturbance, or some other, which serves as a shelter of expression for our utter ignorance of the subject. That a small quantity of blood, not, perhaps, on some occasions, more than a spoonful if it could be collected, wandering out of the common course of the circulation, that a mere error *loei* of some of the red particles of the blood should cause death, and leave the intestine entire, is to my mind one of the most singular facts in the whole range of

pathological inquiry—a mystery which cannot be removed in the present state of medical science ; but it forcibly intimates the necessity of endeavouring to explore those relations which exist between the different parts or systems which compose the body, since this is only one among many, and an ample collection of facts might lead us at last to the discovery of some general law on which they, perhaps, wholly depend.

“ It is not unusual to perceive, on opening bodies, some degree of dusky injection of the Serous membrane of the bowels ; but this is not to be regarded as a true sign of previous Inflammation, for it is unattended by any of that interstitial effusion of serum or lymph into the cellular membrane of the intestines, which is always a concomitant of genuine inflammation seated there. We talk of *Resolution* technically, as if inflammation disappeared without any intermediate change whatever ; but that is not the fact, for it never terminates without an increased secretion from the affected texture. These general remarks having been premised, I shall proceed by drawings and Letter-press, to illustrate in this Fasciculus, Inflammation Acute and Chronic, the Hemorrhagic Intestine, Tubercle, and Fungus, these being the appearances most frequently presented in the Morbid Anatomy of the Serous Membrane of the Bowels ; but as the derangements of the solids displayed after death are only useful when connected with the correspondent disturbances which occur during life, I shall endeavour to enumerate the symptoms by which the presence of some of the forementioned conditions may be detected at the bedside of the sick.” 78.

Several beautiful plates then follow, illustrating the diseases above enumerated, after which, our able author proceeds to the symptomatology of these affections.

In a former fasciculus Dr. A. observed that, in general, a line of demarcation could be drawn between inflammation of the serous and of the mucous membrane of the stomach, therefore the former was designated sero-gastritis, and the latter, muco-gastritis. A similar distinction, and a similar nomenclature may be applied to inflammation of the intestines—heuce the terms will be sero-enteritis, muco-enteritis. We agree with Dr. Armstrong that a more minute division or subdivision than the above is unnecessary, useless, and impracticable.

Sero-gastritis is acute or sub-acute—the chronic form appears to be considered by our author under the head of peritonitis. The following description of the symptoms of acute sero-enteritis is a fair specimen of the acute observation and descriptive powers of our author.

“ In acute sero-enteritis, fairly established, there is considerable fever. The skin is everywhere hotter than natural, often dry about the trunk, and at the same time moist in some of the extreme parts of the body, but especially about the palms of the hands and the forehead. The pulse is very quick, ranging generally from 120 to 130 in the minute ; it is also very small, as if not only the heart, but the artery at the wrist had contracted upon itself ; yet if it be accurately examined, it will be found during the stage of excitement, firmer than natural, almost feeling then like a small whip-cord or harp-string. The tongue is covered with a whitish fur, and there is excessive thirst. The breathing is hurried and anxious, and yet the respiration seems principally carried on by the diaphragm and intercostals, the abdominal muscles acting less than in the healthy state. The integuments of the belly lose their natural softness and pliability, and are hard and irregular to the touch. There is a concentration of heat over the inflamed region of Serous membrane, and both pain and tenderness are complained of there particularly under pressure, during the continuance of which, the patient winces—changes the expression of his face from an increase of pain. The bowels are obsti-

nately constipated, an effect of the inflammation of the Serous membrane, which is, unfortunately, too often treated as a cause of the inflammation. The abdomen is tense and distended, chiefly from the generation of flatus within, of which the patient usually complains much. If nausea, retching or vomiting should not occur in the commencement of the attack, they are almost sure to be its attendants during the progress of the inflammation, and are generally the most urgent in the worst cases. The patient almost always lies upon his back with his legs drawn upwards, as if instinctively to relax the abdominal muscles, and he is cautious in moving the lower extremities, lest he should increase the pain; while he mostly moves the upper more frequently than natural, and in bad cases, often dashes down the hand, or lets it abruptly fall upon the bed-clothes. The urine is scanty and high-coloured, as it is in almost all Serous inflammations." 92.

The above is a concise, but very accurate description of sero-enteritis; but our author remarks that the disease is frequently ushered in by a sort of rigor, and, when that passes away, it has two subsequent stages—one of excitement—the other of collapse. It is very rare that recovery takes place from the latter.

"In the stage of excitement, the skin is uniformly hotter than natural, except in those parts which are moist, and exposed to the air, and then the evaporation sometimes makes them rather cool, a circumstance which should be remembered, because I have known hasty observers conclude from it alone, that the fatal stage of collapse was at hand, when in reality it was very far distant. During the stage of excitement, too, the pulse, though smaller, is always more resisting than natural; the respiration is not embarrassed but merely quick and anxious; the countenance has not a sunken character, and the patient continues to complain of abdominal pain.

"Whereas in the stage of collapse, the heat falls everywhere, first on the extremities, and then upon the trunk, the skin becoming of a clayey coldness and dampness at last, while the fingers and hands are generally mottled by a dun sort of redness here and there. The pulse becomes quicker, smaller, and is now really weak, feeling like a soft undulating line. The respiration is embarrassed even to exhaustion; the whole muscular power is prostrate; the face is sunk, and especially hollow around the orbits; the abdomen grows more and more tumid and tense, while the pain mostly lessens, or sometimes entirely leaves the patient; and lastly, a sort of passive gulping generally takes place, the contents of the stomach being apparently forced up the œsophagus by the pressure of the intestines, which are then for the most part enormously distended by flatus. In this state, the patient sinks, almost always with a collected mind in common Sero-Enteritis, and sometimes even speaks confidently of recovery, when all hopes have been extinguished in the practitioner's mind." 93.

SUB-ACUTE SERO-ENTERITIS.

"This, Dr. A observes, differs from the acute form in three points—there is less abdominal uneasiness—less febrile disturbance—the march of the malady is more slow. The acute form, if not arrested by active treatment generally terminates in about five days—the sub-acute goes to twice that length of time. The comparatively more rapid progress of the acute form demands a more prompt treatment—and there is no doubt that it is to tardy irresolute measures at the beginning, that abdominal inflammations are so often fatal in this and other countries.

When sero-enteritis follows ulceration of the mucous membrane, its

cause and nature may be inferred from the previous history—and from the suddenness and intensity of the supervening inflammation.

"If the previous Inflammation of the Mucous membrane had been confined to the small intestines, during its continuance, the tongue would be red at the tip and edges, the bowels easily moved, and the stools of a mucilaginous or oleaginous character, the integuments of the belly hard, and tender under pressure at particular points or patches; but if the Inflammation had extended to the larger intestines, an intractable diarrhoea would be a conspicuous symptom, without griping, when the Inflammation was seated in the caput coli—with griping, when seated lower down, in the transverse arch, or sigmoid flexure. As already observed, the supervening attack of Acute Inflammation is sudden and intense, without any assignable cause, save that of Ulceration, which could in any way account for such an unexpected occurrence. The pain is rapidly diffused over the whole abdomen; the patient is often affected by strangury; the pulse becomes excessively rapid, the skin very hot, and the breathing most anxious. Vomiting follows generally of a dark matter, of a mucous consistence, and the patient sinks commonly within forty-eight hours from the attack, suffering more pain to the last than in common cases of Sero-Enteritis, where there is no Ulceration. Two cases occurred which have left an impression upon my mind, that patients now and then recover from this dreadful combination of Inflammation. The first case of this kind took place several years ago; the last happened, recently, in an excellent and highly esteemed friend. Both these were preceded by signs of Mucous Inflammation, both followed by the Acute attack of Sero-Enteritis, which, yielding to prompt and bold evacuations, left the signs of Ulceration on the Mucous texture, and among the rest discharges of pus, from which both the patients alike slowly but completely recovered. Such cases may be considered as very rare escapes from one of the most deadly forms of disease—the forlorn hope of Inflammatory Affections." 94.

We are very much surprised to find so acute an observer as Dr. Armstrong overlook *perforation* as by far the most frequent cause of this sudden and terrific disease. We venture to assert that in five cases out of six, where the symptoms are such as have been described above, and where the termination is equally rapid, there will be found perforation of the gut, and extravasation of its contents. Such, at least, is the result of our own observations.

The term peritonitis, Dr. A. remarks, is used most desultorily in medicine. If by it we mean inflammation of the peritoneum lining the abdominal parietes, it may, Dr. A. observes, be said occasionally to exist, in contradistinction to sero-enteritis.

"When Acute Peritonitis, as above explained, occurs, it may be distinguished from Acute Sero-Enteritis, by the following Symptoms; namely, in Acute Peritonitis the pain is diffused over the whole belly, whereas in Sero-Enteritis it is mostly limited to some particular part of that region. In Acute Peritonitis, the skin is not only hotter, but the pulse is more expanded than in Acute Sero-Enteritis. Finally, nausea, retching, and vomiting are far more apt to appear at an early stage of Acute Sero-Enteritis than of Acute Peritonitis. If any case should take place, in which the pain and tenderness are universally diffused over the belly from the beginning, in which the pulse is small as well as hard, and in which vomiting has been a prominent sign from the onset, it may be concluded, either that a very large portion of the Serous membranes of the Bowels is inflamed, or that a less portion is inflamed conjointly with a considerable one of the peritoneum lining the abdominal muscles." 95.

Dr. A. also remarks that the term puerperal fever and puerperal peritonitis are vaguely employed in medical literature. If by puerperal fever be meant a febrile affection, *sui generis*, entirely different from every other known fever, then Dr. A. confidently avers that there is no such thing in nature—"that it is a sole creation of the closet—such stuff as dreams are made of—a mere tissue, in short, of the fancy."

"What then is Puerperal Fever? It is a Common or Specific Fever, occurring in the Puerperal state, and modified, like almost every other affection, by the condition of the patient at the time of the attack. If Small-pox, Measles, Scarlet Fever, or Typhus were to occur in the Puerperal state, we should not, on that account, give each a designation, though they would be modified by the predisposed condition of the Serous membrane of the abdomen, so much so, that each, in a large majority of instances would be complicated with Acute Inflammation of that membrane. Again, if a Fever arose not from any such Specific occasions as give rise to Small-pox, Measles, Scarlet Fever, and Typhus, but from a Common occasion, for instance, from the application of a low or variable temperature, or any like agent not possessed of a specific property, that Fever would have not a Specific, but a Common character, and the chief mischief would fall upon the peritoneum in the form of Inflammation, for the reason already mentioned, namely, that this texture is powerfully predisposed to that state immediately after delivery. Now, what authors have called Puerperal Fever, or Puerperal Peritonitis, is I repeat, a Common or a Specific Fever, occurring in the Puerperal state, and inevitably modified by that state. In general, it is a Common Fever combined with Inflammation of the abdominal and pelvic viscera, but it is sometimes genuine Typhus Fever occurring in the same state, and then, superadded to the symptoms of Peritonitis, are developed, rapidly for the most part, those symptoms, by which a fully formed Typhus can be recognized; namely, a glazed dry brown tongue; a dusky lip and cheek; a brain more or less muddled; a heavy intoxicated or sleepy cast of countenance; a weak respiration even to panting when the patient speaks; a lax flesh; much prostration; and a very soft, compressible pulse. It may be here not improperly noticed, that, when a case of Common Fever terminates fatally in the Puerperal state, the remains of Inflammation are generally confined to the abdominal and pelvic viscera; but not so when Typhus ends mortally in the Puerperal state, for then not only the Mucous but the Serous membrane of the Bowels generally suffer, and the Pia Mater, as well as the Arachnoid, show evidences of previous Inflammation, while the bronchial lining is usually much injected by black blood, and covered by an adhesive secretion. When this bronchial affection predominates from an early period, the face has a dusky hue, the respiration is feeble, the pulse is soft, the heat subdued, and when the patient coughs the sound of bronchial stuffing can be heard, or at all events it can be detected by the application of the stethoscope. It is of great consequence to consider this deliberately in determining the treatment; for, wherever an urgent Bronchitis co-exists with abdominal Inflammation, patients do not bear evacuations of blood, by any means so well as when it is absent. Indeed, such cases are always very perilous, and often end unfavourably, in despite of the most judicious management." 96.

Dr. Armstrong remarks that nothing is more common than to find tenderness of the epigastrium both in acute and chronic cases, and "when it exists alone, it amounts to nothing in a pathological estimate." He justly observes, that mere tenderness in the abdominal integuments over the regions of the intestines is not, standing by itself, to be taken as an unequivocal sign of inflammation, serous or mucous.

"In specific Fevers, but especially in Typhus, I have again and again known the whole integuments of the belly so tender to the touch, that the patient could not bear the slightest pressure, and have observed the same thing occasionally in Common Fevers

But in such cases, whether of a Common or Specific nature, the integuments of the belly were soft and pliable, and even a tenderness, too, existed on other parts of the surface, and there were not the combined Symptoms of Abdominal Inflammation; while, on the contrary, indications existed of some affection of the Brain or Spinal Cord, of which this superficial tenderness is often an effect. An accumulation of scybala in the colon, distention of the Bowels by flatus, long continued coughing, deep seated Inflammation of the integuments themselves, without discoloration, will all now and then create abdominal tenderness: but if a medical attendant carefully consider the combination of the symptoms, he will be able to determine whether internal Inflammation be absent or present." 96.

Dr. A. ends this section by some useful cautions as to the examination for herniæ, in cases presenting the symptoms of peritonitis or enteritis.

INTUS-SUSCEPTIO.

This is not an uncommon appearance in the intestines of children who have died of some cerebral disease, and that without sign of inflammation in the invaginated parts. On other occasions, however, both the contained and containing portions of gut are injected or inflamed. In the plurality of the cases witnessed by Dr. A., the disease, or rather the dislocation, followed the operation of *drastic* purgatives—a part of the ileum having been driven into the colon.

"It is difficult to enumerate symptoms which can be held as truly diagnostic of an Intus Susceptio occasioning obstruction and Inflammation. But if in any case the intestines should appear to be gathered into a large irregular ball or lump in a particular region; if the pain proceeded from that region, and was every now and then suddenly and excessively aggravated; if febrile disturbance attended these symptoms, followed by a vomiting of a yellow pultaceous matter, with a fœcal odour, a dangerous Intus-Susceptio might be fairly suspected.

"It has been stated by the most respectable authorities, that cases, with the ordinary characters of urgent Colic, proved rapidly fatal, without the signs of Inflammation during life, or the appearances of it after death; but not a solitary instance of this nature has occurred in the whole course of my own experience, the effects of Inflammation having been fully displayed whenever the body was minutely examined. Nevertheless, I can easily imagine, that a patient might be so exhausted by repeated attacks of spasmodic pain as to sink under the shock of copious or even moderate evacuations, at an advanced stage of the complaint, for when pain has been long and severely endured, evacuations are often ill sustained." 99.

HEMORRHAGIC INTESTINE.

Dr. A. says, that in the greater number of cases of this kind which he has seen, there was "the quick rebounding pulse, which the ancients called *dierotos*," preceding the hæmorrhage. But, in some cases, the circulation was so calm, that no such irruption could have been anticipated.

"The only sign, however, which can be relied upon, is the actual discharge of a large quantity of blood at once from the bowels of a very dark colour. In many cases it remains a fluid gore in the vessel, like so much menstrual discharge; but in others it is found

partly fluid, and partly coagulated, the clots of cruor always being of a very loose consistence. It has been imagined, by a foreign writer, that when the blood evacuated from the bowels continues fluid, it is a certain sign of its having been *secreted* from the vessels, but this proposition appears to me too universal to be fairly admissible; for I have seen the blood passed in coagula, where the most careful inspection of the body after death could detect no appearance of a ruptured vessel. Moreover, though the menstrual discharge generally remains fluid, yet I am confident, that it sometimes coagulates, under certain conditions of the uterus, without the rupture of any of its vessels. Where hæmorrhage from the forementioned state of intestine, has once occurred, it is very liable to return again and again, so as to place the patient in the greatest jeopardy. Indeed, there was a time in the earlier part of my professional life, when most of the patients thus affected sunk under the repeated losses of blood; but I deem it very essential to remark, that since I have kept patients constantly recumbent and used laudanum in doses sufficient to soothe and sustain them, the general result has been extremely favourable. It is of great consequence to withhold purgatives, fruits, and slops in such cases, as they are apt to maintain the hæmorrhage. The best diet is vermicelli or rice boiled to a pulp, and merely moistened with a little chicken broth, to remove the dryness and insipidity. Whenever patients complain of being faint after a motion, the stools should always be attentively examined. For want of this precaution I have known not only the Hemorrhagic state of the intestine overlooked in fever, but other conditions of the Bowels attended by discharges of blood, as will be more particularly noticed in the illustrations of the Morbid Anatomy of the Mucous Membrane." 100.

CHRONIC PERITONITIS.

This subject forms the concluding topic of the present fasciculus, and appears to be somewhat unnaturally separated from the acute, and sub-acute forms of the same disease. This dislocation, however, is of little importance. It is properly observed by Dr. Armstrong, that in the management of acute affections, it is a duty not to leave patients, or to allow them to go about "while a latent spark of inflammation remains, for that spark may either slowly consume the organ in which it is seated, or it may be suddenly kindled up into the highest degree of inflammation a second time." There is but one draw-back upon this piece of good advice, namely, the inability of the doctor to enforce the observance of the precept. Those who are most conversant with the world will acknowledge that patients are extremely glad to shake off the doctor and the doctor's "stuff" as soon as possible after an illness. They are not very capable of judging about "the latent spark of inflammation;" but they have a very good idea respecting the latent guineas in their pockets—and a very natural aversion to medicine when the apparent necessity for it is removed. The same difficulty lies in the way of the following precept.

"On the other hand, Chronic Inflammation requires to be watched, not merely for the purpose of daily reducing it, but of being ready promptly and effectively to meet an Acute attack, if such should supervene, as time is then so valuable, that if much of it be lost, no future skill can retrieve the error—can save the life of the patient. There is no fraction of a day in law; but the fraction of an hour is sometimes so important, in the practice of *physic*, that unless it be duly taken into the account, it makes all the difference between *life and death*." 101.

With the following concise but faithful description of chronic peritonitis we shall conclude this article, as it indeed concludes the third fasciculus of Dr. A.'s work.

"In Chronic Peritonitis, the face and whole surface is generally pale, and the flesh wastes; the abdomen being large, and the extremities thin. The abdomen is not only tender and painful to the touch, but it is distended and hard. The pulse is jerky, and the tongue commonly covered with a whitish fur. If any fever be present, it is the most distinct in the evening or during the night. The urine is scanty and high-coloured. Motion of the body aggravates the pain, and makes the respiration more or less frequent and anxious. In some cases the stomach is irritable, but in others it retains bland food without inconvenience. When ascites takes place, the inflammatory symptoms are occasionally removed, but in the majority of examples they remain under a mitigated character. If but little serous effusion should occur, and the coils of the intestine be united together by the organization of the lymph poured out between them, such adhesion may be suspected, by a lobulated or irregular feel of the Bowels under the hand when passed over the abdominal integuments; by a sense of weight, constriction, and confinement within the belly; and by the pain being considerably increased under the operation of a purgative. It is always difficult, and frequently impossible, to predicate that Tubercles exist on the serous membrane of the Bowels. But when the skin assumes a delicate hue—when the conjunctiva is blanched—when the expression of the face is more softened and pensive than natural, and especially when the patient has any cough, a presumption of their existence in the Serous membrane of the Bowels might be excited, if any irritation existed in that texture. In thin subjects I have sometimes felt the Tubercles through the integuments of the belly, by pressing the fingers deeply inwards, and then pushing them across by slow advances, from one side to the other, till the whole of the abdominal regions were thus examined. In one case, some of the Tubercles felt like small peas, and were found nearly of that size, after its fatal termination. The cellular membrane of the abdomen is sometimes drawn into little round irregularities, which may be distinguished from Tubercles of the peritoneum simply by their superficial situation. At the same time I do not wish it to be understood, that Tubercles on the peritoneum can always be detected by pressure; for, unfortunately, cases have occurred in my own practice, which fully demonstrated that they might exist there, without being thus discoverable." 102.

This fasciculus contains six plates, executed in the usual style of superiority which distinguishes those previously published.

We observe that Dr. Armstrong makes a proper distinction between pathology and morbid anatomy. Most writers would have entitled the work just reviewed, as a pathological performance. It is not one of that kind. It describes the changes which diseases produce in the living organs—but it does not treat of the nature of those diseases themselves. Pathology is to morbid anatomy what physiology is to simple anatomy. Physiology describes the functions and anatomy the structure. Pathology describes diseases, and morbid anatomy the ravages of these diseases. We shall be very anxious for that part of Dr. Armstrong's work which is to treat of pathology.

X.

ENGRAVINGS OF THE NERVES COPIED FROM THE WORKS OF SCARPA, SOEMMERING, &c. By *E. Mitchell*, Engraver; with an explanatory Letter-press, by *Dr. Knox*, Lecturer on Anatomy. In 4to Numbers, price 1s. Edinburgh, 1829, Maclachlan and Stewart.

We have examined with attention the various works which have, of late, appeared on the subject of *descriptive anatomy*; we have also examined the illustrative plates which have accompanied these publications; and we have, in consequence, arrived at the conclusion, that Dr. Knox and Mr. Mitchell have effected that which the student of anatomy has so long desired;—we have now a work which every tyro in the science may study with advantage, and every practitioner derive improvement from.

Dr. Knox has done much as a teacher of anatomy, and still more as an author, to improve and enlarge that science to which he has devoted his undivided attention; he has enriched the medical literature of the country by his correct translation of the laborious CLOQUET—he has published many useful memoirs on Comparative and Pathological Anatomy, and he is now engaged in presenting to the profession a valuable series of engravings, illustrative of the origin and distribution of the nerves.

Although we do not think that anatomical drawings or engravings are, of themselves, calculated to convey to the student that portion of anatomical information which he requires, we are nevertheless of opinion that they may prove of much service to him, as agents in directing him to prosecute his investigations on the dead body.

Scarpa, Mascagni, and Cloquet, have given to the world representations of the different textures, structures, and parts of the human body, and they have done so with an accuracy that cannot be questioned—but their works are expensive, and are, therefore, beyond the reach of ordinary students.

Dr. Knox, with proper attention to the interests of his pupils, has caused that eminent engraver, Mr. E. MITCHELL, to deliver, on a moderate, though sufficiently large scale, the most useful of the plates of these celebrated anatomists, and what is of more consequence, he has not followed the example of other modern anatomists and engravers, in endeavouring to *alter and amend, without acknowledgment*, the productions of those to whom, in his title-page, he honestly confesses that he is indebted.

Appended to the engravings, Dr. K. has placed an excellent and minute description of the parts delineated. The first, second, and third plates are most accurate copies from the magnificent engravings by Anderloni, that embellish the valuable work of Scarpa; and we have no hesitation in affirming that they afford true and just views of the course and connexions of the hypo-glossal—glosso-pharyngeal and cardiac nerves. The fourth plate, which is taken from Soëmmering, exhibits the base of the brain, with the origin of the cerebral nerves of their natural size.

We feel confident, from what has been stated, that this publication will find its way into the library of every student, and into the hands of all those medical practitioners who do not possess the original works.

As we are anxious that the merits of the undertaking should be fully appreciated, we shall notice the future Numbers as they appear, so that the profession may be enabled to judge of the extent of its bearings.

XI.

A TREATISE ON OBSTRUCTED AND INFLAMED HERNIA, AND ON MECHANICAL OBSTRUCTIONS OF THE BOWELS INTERNALLY; AND ALSO AN APPENDIX, CONTAINING A BRIEF STATEMENT OF THE CAUSE OF DIFFERENCE IN SIZE OF THE MALE AND FEMALE BLADDER. By *Henry Stephens*, Member of the Royal College of Surgeons. Octavo, pp. 191. London, E. Cox, 1829.

THE author informs his readers in a modest and sensible preface, that he does not propose to write a general treatise upon hernia, nor compete with the great names of Pott and Hey, Lawrence and Cooper, that shine so brightly and broadly on this division of surgical science. His object has been rather to fill up lacunæ, to supply some omissions and defects in the works already existing, and to describe some varieties of hernia which he avers to have been yet unnoticed by other authors. We shall presently see how far Mr. Stephens will succeed. The author begins with a chapter on "obstructed Hernia," but it exhibits a sad want of systematic arrangement, and is put together in so rambling a manner, that any analysis would be quite out of the question. Under these circumstances we must let Mr. Stephens explain his own views, which he does by a case.

"Long existing and irreducible herniæ produce many remarkable and painful symptoms, and, I believe, frequently occasion death, from a cause which it is in the power of surgery to remove by an operation, where the true nature of the malady is well understood.

"A remarkable case of this kind came under my care, where I had the satisfaction of saving the life of my patient by an operation, although it was one of those cases which have not been considered as requiring it, no strangulation existing.

"In the month of September, 1824, a woman was taken with sickness, and pain in the bowels. Cholera morbus being then prevalent, I expected that these were the preceding symptoms of such an attack; and as the sickness was not followed by the usual action on the bowels, I gave her some aperient medicines, to favour the intentions of nature. Contrary, however, to my expectations, no action of the bowels took place; the pain, though frequent, was not constant, nor yet alarming, nor was the vomiting. I was called to her first on Thursday, she having then laboured under the above symptoms three days; she continued in the same state for three days longer, without any action of the bowels, notwithstanding my continued endeavours to procure it by aperients and injections. At this period the matter vomited had a fecal appearance, which the next day was increased, with a very offensive smell. The pain was not severe, and was not felt much, except upon turning on the left side: this position caused pain and vomiting, so also did the taking of either food or medicine; there was no tension, and but a slight soreness of the abdomen. Considering that this was a case of extraordinary anti-peristaltic action, I gave the croton oil, in doses of three and four

drops, with the hope of producing a revulse of the peristaltic movements; this, however, only caused increased vomiting, as did all aperient medicines. I enquired if she was the subject of rupture, she answered that she was not, but as I afterwards found, she did not know what I meant. I was not very minute in my enquiries upon this point, because I did not regard the symptoms as indicating any strangulation of the bowels. Upon the fourth day, her countenance began to exhibit signs of sinking, and the pulse was getting feeble and fluttering; these symptoms slowly and gradually, but progressively increased. After she had continued thus until Thursday, being one week from the day I was first called to her, she slightly mentioned to me that she had a swelling on the side of the abdomen, which had existed twenty years. Upon examining, I found a ventral hernia, having upon its surface the appearance of an old cicatrix. It was situated to the left of the umbilicus, and some little distance below it. Upon enquiry I found this hernia had existed ever since the birth of her first child, and that there had been a sore upon the surface of the skin at its first formation, and that no alteration or change in it had occurred since. It was soon evident that this hernia was not strangulated; it was not tense; pressure upon it gave no pain; it receded under the touch, and passed readily into the abdomen, with a slight gurgling noise, but returned when the pressure was removed. The pain, which had all along been in the bowels, was not of that agonized and alarming character which strangulated intestine always produces; and was not present, nor was the vomiting, except upon turning on the left side, or upon taking any thing into the stomach. I therefore concluded, from the hernia being easily returned, that the illness was not depending upon that, and also that an operation would be useless, as no good purpose could be answered by it. She continued sinking, her pulse becoming excessively feeble and tremulous, her voice failed her, and she was unable to speak, except in a low whisper, and with long-drawn sighs. On Friday she was worse, the sense of sinking had increased, and as she feebly expressed it, she felt as if her life was going from her; she had occasional faintings, with frequent hiccup, and the stercoraceous vomiting was still more foetid and discoloured. From her family I learned that she had long been subject to a complaint in her bowels, always feeling pain after her meals, which was considered as colic; she was often obliged to leave her work in consequence of pain after eating. Reflecting, on my return home, upon the history of this case, I concluded that the symptoms, although not those of strangulated hernia, were yet such as would be produced by any permanent and mechanical obstruction in the bowels. I therefore considered that it was not only possible but *highly probable*, that the obstruction was in that portion of the bowel which was contained in the hernial tumour. I therefore determined instantly to cut into the hernial swelling, and examine the condition of the parts, and thus see if relief was possible. I returned to my patient, and proposed to her and her friends an operation, as affording her a chance of relief. She, but more especially her friends, refused to permit any such experiment to be made, and urged, among other things, her apparently dying state. I admitted her extreme danger, but contended that there was a chance of saving her, because many of her present symptoms had existed from the first, and that although extremely ill, yet she was not many degrees worse than she had been for some days. I however could not prevail. Friday passed away, and on Saturday morning I found her with little perceptible alteration. I again urged an operation, and declared to her friends that if they prevented it I should consider them as the cause of her death. I found them, although not absolutely submitting, yet inclined to yield to my persuasions. I directly sent an invitation to two of my professional friends, acquainting them that I had an important and novel case, upon which I was going to operate. On Saturday afternoon they came, and saw the case, and heard my explanation upon it, by which they were well satisfied as to the propriety of my attempt, but feared (as I did also) that it was too late. I had by this time overcome the reluctance of the friends, and although there appeared but a very slight chance of success, I had determined upon trying it. I divided the integuments, which were very thin, by a crucial incision, and afterwards a superficial fascia, with some cellular structure; the hernial sac was now exposed, which I opened freely, and found a portion of the small intestine within, which was irreducible, another portion being loose, and readily passing into the abdomen when pressed upon. The small irreducible knuckle of intestine was adhering very firmly to the hernial sac, and in a position which at once accounted for the symptoms I had observed; it was so closely united by adhesions to the hernial sac as to obstruct, to all appearance, its peristaltic action, and prevent the due course of its contents. There

was no stricture, for I passed my finger very easily into the abdomen by the side of the intestine, which was somewhat discoloured. I relieved the bowel from its adhesions to the hernial sac, partly by the knife and partly by the finger, with the assistance of my friends, and pushed the intestine into the abdomen, passing my finger in and around the opening on the inside, to be satisfied that there was no further adhesion. I then sewed up the wound. She did not feel that immediate relief from this operation which is experienced in cases of strangulated hernia. The first favourable symptom which was observed was, that upon swallowing some liquid, she had no vomiting after it, a circumstance which had never occurred previous to the operation. I saw her again in two hours, and found that she had passed some fecal matter from the bowels, for the first time since her illness, and that the hiccup had very much abated; her countenance now wore a less anxious appearance, but her pulse continued very low and fluttering, and she still felt a great sense of sinking, but rather less than usual. She continued in this manner for three days, slowly improving. I gave her aperient medicines and injections, which did not operate very freely. On the third day I gave her a strong dose of aperients, which produced copious discharges; the pulse after this immediately began to rise, the sense of sinking almost instantly went off, and she rapidly recovered." 8.

The above case opened to our author's mind new views of the nature of hernia, which views are, that not only strangulated herniæ may be fatal, but that simple adhesion of the hernia to the sac may also produce symptoms, which, though not so quickly, are not less surely fatal than those occasioned by strangulation. The latter cases are much more gradual in their progress than the former, in the one detailed by Mr. S. the symptoms having lasted a week and two days after he was called to attend, besides having existed three days previous to that. In the umbilical and ventral hernia especially, fatal symptoms are far from uncommon. Disorders, says our author, in the intestinal canal are produced by the adhesions of the hernia to the sac, which have the effect of rendering the peristaltic motion and passage of the ingesta through that portion of the tube, confined, difficult, and painful. Thus umbilical and ventral herniæ are well known to occasion complaints of the stomach, and habitual colics, especially after meals. This difficulty in the performance of the important function of the part goes on increasing with the increase of adhesions, till at length it amounts to a total obstruction, producing death, though with symptoms less violent, and considerably more protracted than in strangulated hernia. Sometimes "this state of adhesion terminates in a direct inflammation of the parts."

In the operation for strangulated hernia, Mr. Stephens recommends the surgeon not to return the bowels, "until he is satisfied that they are so freed from their adhesions, that when returned into the abdomen, they will be capable of resuming their functions." In all doubtful cases he would

open the sac, examine the state of the parts within, remove the adhesions when that is practicable, and, if possible, return the contents of the hernia into the abdomen. It is well known, and generally admitted, that umbilical herniæ are generally accompanied with colics, diarrhœas, &c. which, Mr. S. conceives, are strong arguments in favour of the truth of what he has advanced; that adhesion is generally the cause of the previous disorders, or of what he should term the premonitory symptoms, and also, in many cases, of the ultimate fatal effects. Mr. Stephens, however, by no means confines the bad consequences of adhesions to umbilical herniæ, but cites various cases that occurred to Mr. Earle, Mr. Lawrence, Mr. South, Mr. Key, and Sir Astley Cooper, to prove that they occur in the other varieties of the disease.

"Upon a careful perusal of the very excellent 'Treatise on Ruptures,' by Mr. Lawrence, I find under the head of 'Chronic or Slow Kind of Strangulation,' an indirect description of the hernia, to which it is my purpose in this work to call the attention of the profession. Mr. Lawrence has very ably described the different progress of the symptoms in this, and in what he calls the 'Acute, or Inflammatory Strangulation.' The latter, he describes, as more frequently occurring in recent hernia, in young persons; the former in large, and old hernia. Mr. Lawrence's description, although clearly agreeing with a state of obstructed hernia, does not exactly correspond with what I have observed. He describes the strangulation in these cases, as being caused by an accumulation of the intestinal contents in the hernia, which he says, is indicated by a slow swelling or enlargement of the parts, and an enlargement of the abdomen, from accumulation above the stricture. 'The indication,' he observes, 'is to unload the intestine.' In the cases which I have related, mere fecal accumulation was not the cause of the symptoms, for if so, Nature had herself fulfilled the indication, for in the case which terminated fatally, the stercoraceous vomiting had completely emptied the alimentary canal above the stricture, with the exception of some flatus; and in both cases, the intestine in the hernia was empty.

"Mr. Lawrence has, under the head of slow strangulation, described a state of obstructed hernia from fecal accumulation, and without doubt, such a state often is produced; but I suspect that the cause will be found to be an adhesion of the parts. Where there is no adhesion, I should imagine that the obstruction might generally be removed by the usual means adopted for reducing hernia, for a collection of feces only, could hardly oppose an inflexible resistance to the return of the parts; particularly in an early stage of the symptoms. Obstructed Hernia admits of relief, or not, in proportion to the degree of permanence in the cause of obstruction.

"With due respect and deference to the opinion of Mr. Lawrence, I consider that this hernia ought not to be described under the head of strangulation, because the symptoms are produced by a different cause, and frequently exist without any stricture whatever; and upon a true understanding of this distinction between Strangulation and Obstruction, the life of the patient often depends; for without it, if a surgeon in operating upon this kind of hernia, should find a slight degree of constriction, he would content himself with dividing the stricture, considering it as the sole cause of the symptoms; he probably would not think of separating the adhesions, unless easily effected. The patient left in this state, (and most authors justify this proceeding,) would die, and upon dissection, the bowels in the abdomen, and the peritoneum, would probably be found more or less inflamed, which in the mind of the surgeon, would sufficiently account for the patient's death, under the name of *Peritoneal Inflammation*, or the continuance of *Enteritis*." 62.

Mixed cases of obstruction and strangulation Mr. Stephens considers as much more frequent than those of simple obstruction. All previously

reducible ruptures which have suddenly descended, producing symptoms of ileus, are without doubt caused by a stricture, but all large and irreducible herniæ, which have for some time previously caused pain, particularly after meals, and have produced occasional obstructions in the bowels, are most probably connected with adhesions. The tumour is also generally less tense, and the abdomen not so soon painful in cases of obstruction, as of strangulation; but these distinctions are not immediately necessary, if a surgeon bears in mind the necessity of separating any adhesions which he may find, in cases where he has occasion to operate for hernia, and of not considering the stricture as the only possible cause of the symptoms.

So much for our author's views of what he denominates "obstructed hernia," and we believe that we have given the pith and marrow of them. No doubt can exist, nor indeed has at any time existed that bowels confined by adhesions in hernial sacs, will not go on with their natural functions so freely as when loose and floating in their native cavity. But the question is, will adhesions, *per se*, occasion a fatal obstruction to the office of the gut? Mr. Stephens says they will; and the issue is with him and his surgical brethren. For our own parts, we doubt whether such be the case, nor can we imagine that a patient will die from this cause alone. The case is very different when the adhesions are so arranged as to act like a stricture in the gut, or when the latter is so placed as by being convoluted in itself, or in any other manner to prevent the egress of matters from its cavity. We also doubt very much the propriety of the practice recommended by Mr. Stephens, of always dividing the adhesions in the operation for strangulated hernia, and particularly of dissecting, as it were, one fold of gut from the other. Who has not seen adherent intestine left in the sac after the operation of dividing the stricture, and that without any bad results whatever? He would be a bold surgeon, we think, who, in operating for old irreducible herniæ, was to make it a rule to return the parts, no matter how firm the adhesions were! Whilst we profess ourselves not to be convinced then by our author's reasoning, we award him gladly the meed of ingenuity, zeal, and industry in collecting the facts with which he has flanked his opinions. We must say too, and we do it sincerely, that Mr. Stephens has at all events placed in a stronger point of view than is usually done, the inconveniences, if not dangers, of adherent hernia.

Our author next proceeds to the consideration of INFLAMED HERNIA, and although we by no means agree in much that he advances, we cannot but admire the dexterity with which he brings forward other peoples' cases to support his views. Having shown, or attempted to show, that adhesions of the gut are a source of obstruction to the right performance of its functions, he conceives that they are also a frequent cause of inflammation.

"The contents of a rupture are said sometimes to become inflamed in connexion with an inflammation of the bowels generally, and totally independent of any cause arising from the rupture. That this may sometimes be the case is probable, but I believe such instances are extremely rare. These inflammations, I believe, are almost always generated by the morbid condition of the parts within the rupture, and afterwards becomes quickly communicated to the interior of the abdomen. Large irreducible herniæ, more especially umbilical, are those in which this form of disease mostly occur, which appears to partake more of the character of enteritis, than of ileus. A small portion of constricted intestine, however intensely inflamed in itself, does not so necessarily, or so quickly

communicate its disease throughout the abdomen, it being of comparatively local origin; but when the contents of a large hernia become inflamed, as a sequel (I believe, of various chronic confinements, and changes of structure of the parts, the disease from the first will be of a more diffused and general character, and will more extensively and quickly communicate with the interior.

"Although large irreducible ruptures are those in which disease and inflammation, independent of mere mechanical obstruction, are most likely to arise, yet small irreducible ruptures are also very subject to this form of complaint, particularly omental, or those wherein omentum is contained. The omentum is subject, in its unnatural situation, to become thickened and diseased, and to suppurate.* The hernial sac will also often inflame and suppurate. The appendiculæ epiploicæ of the colon will also occasionally undergo some alteration of structure, when confined within a hernial sac. All these various changes and states of disease become a frequent source of inflammation to the contiguous bowels or peritoneum. The inflammation which is thus produced is attended by an obstinate obstruction, and symptoms of general inflammation throughout the abdomen, and is generally fatal in its consequences. When these herniæ are small, the inflammation of the rupture denoted by pain, soreness, and tension of the part, so clearly precedes the inflammation of the abdomen, that the case is usually mistaken for strangulated hernia, and if an operation is performed, the tension which the parts have acquired fills up the opening through which they have descended, and favours the mistaken opinion of the existence of a stricture. When the herniæ are large, the inflammation of the abdomen and of the hernia are very often nearly simultaneous, and if upon operating there is found a palpable absence of stricture, then the hernia is supposed to be merely participating in a general inflammation of the intestines. The want of success attending operations upon large herniæ, particularly umbilical, is attributed to the direct exposure of the peritoneal cavity, by which a dangerous inflammation is excited. I believe that the inflammation which destroys the patient is, in the majority of cases, altogether established before any operation is attempted.

"Cases of unsuccessful operation for hernia are, in my opinion, very frequently cases of the above kind. If omentum has formed a portion of the hernia,† it is generally found upon dissection to be in a state of suppuration, adhesion, or thickening. Considerable inflammation is usually found to have prevailed throughout the abdominal cavity, and herein consists one strong feature of distinction between inflamed and strangulated hernia. In inflamed hernia, the peritoneum and intestines are found inflamed *throughout*. Layers of coagulable lymph, and depôts of pus, are interposed between the convolutions of intestine, both *above* and *below* the part forming the hernia. In strangulated hernia, after death, according to Sir A. Cooper, page 29, Part 1st. 'three or four convolutions of intestine are found lying across the abdomen, so enormously distended as to exclude the other viscera from view, and agglutinated slightly together by an effusion of adhesive matter; the track of adhesion is formed by red lines,' &c. and further, 'the portion of intestine *below* the stricture, is, on the contrary, remarkably contracted in diameter, and free from any appearance of inflammation.'" 71.

With regard to the diagnosis of inflamed herniæ, our author remarks, that—

"It may be distinguished from a strangulation of such parts, by the more gradual

* "In old irreducible hernia the omentum often becomes diseased."—Sir Astley Cooper, page 27, Part 1st.

† Sir Astley Cooper says, page 30, Part 2nd, "I have never seen the umbilical hernia in the adult but that it contained omentum."

approach of the symptoms, and by their less degree of violence. From obstructed hernia from adhesion it is to be distinguished by the pain and tenderness of the parts generally preceding the obstruction, and by there being more decided marks of an inflammation existing. Pain, with inflammation throughout the abdomen, is generally soon manifested in inflamed hernia, whereas, in obstructed hernia, it is a late symptom, and in general, scarcely prevails at all. Obstructed hernia may possibly be followed quickly by inflammation, and then it would become altogether as a case of inflamed hernia, and require an earlier operation.

"In inflamed hernia, the viscera of the abdomen are very extensively inflamed throughout. In obstructed hernia, very slight traces of inflammation are in general visible after death. Cases of strangulation, are of an intermediate kind; the inflammation being almost wholly confined to the seat of stricture, and the parts above it; the intestines below being in a state of collapse, and uninflamed.

"An empty hernial sac is not unfrequently, by becoming thickened and diseased, a source of inflammation to the bowels and peritoneum; but I have reason to believe that the inflammation so produced is not generally so extensive or so fatal as when intestine is contained within. Coagulated lymph, or pus, forms within the sac. If the former, adhesive inflammation only has prevailed, and the patient will not unfrequently recover. When pus has formed, the case is more dangerous. An operation appears to do good, by giving exit to any pus or fluid which has been secreted." 90.

The chapter on the Treatment of Hernia we must pass over, as it contains scarcely any thing that has not already been advanced by Mr Stephens in his Observations on Obstructed and Inflamed Herniæ. A suggestion for the radical cure of the disease is too curious to be dealt with in so summary a manner. We find it quite impossible to analyse the work, and contrary to our usual custom we are constrained to indulge in longer extracts than we could wish. The following will describe the operation proposed by our adventurous author.

"A friend of mine, had a favourite and very valuable pointer bitch, the subject of a very unsightly and enormous hernia, which from its great size and weight, rendered the animal nearly useless, and her owner had considered the propriety of destroying her. I begged to be allowed to try the effects of an operation to return, and retain, the protruded bowels in the abdomen. From the time the hernia had existed, and from its very large size, I had great doubts of success. I began by reducing the condition of the animal, as I foresaw that the less superfluous fat there was upon the omentum, and in the interior of the abdomen, the greater was the chance of success in returning and retaining the parts. When she was sufficiently reduced, I began the operation by feeling for the opening through which the intestines protruded from the abdomen; upon distinctly feeling this, which was in the situation of the inguinal ring, I began the incision directly over it, carrying it about half way down the surface of the tumour, and through the integuments. I then cut through a quantity of fine cellular structure, and opened the hernial sac, and found omentum and intestines within. I began immediately to draw the parts up from the bottom of the tumour, and to push them with my finger through the opening into the abdomen, but I found there was one considerable portion which I could not reduce, owing to its strong adhesions below. Having always been able apparently to return the hernia, I was surprised to find it irreducible, but it seems, it was the omentum and one portion of intestine only, which was returnable, another portion, being firmly connected to the parts out of the abdomen, had never admitted of reduction. I however proceeded by inverting the hernial tumour by which means I could see the whole irreducible part of the intestine, without the necessity of laying the sac open to the bottom; this discovered to me that the

bowel was not simply adhering to the hernial sac, but that its coats were absolutely incorporated with it, having no line of separation. To attempt in this case to dissect the bowel away from the sac, would have been at a very considerable risk of wounding it; but it occurred to me, that I could separate the sac from the integuments, &c. forming the hernial pouch, to which it had become closely joined. In this I succeeded, and returned the intestine and sac into the abdomen, adhering as I found them. The opening from the abdomen was so considerable, that unless my finger was almost constantly there, I could not prevent the parts from again protruding. The difficulty now, was to retain the bowel within the abdomen. A bandage was of no use, and my object was to gain a radical cure by effectually closing the abdominal opening. I succeeded in preventing the parts from protruding, by means of the quilled suture, substituting pieces of wood for quills; these being drawn closely over the opening, prevented any immediate descent of the hernia, but I saw clearly that the purpose of the operation could not in this way be fulfilled, for the abdominal opening could not be closed by means of the integuments, which would necessarily unite anterior to, and not over the ring, and therefore, the intestines might again force their way beneath them into the cellular structure. However, the immediate return of the hernia was prevented by it, but I must confess, I had but few hopes of its ultimate success. I finished, by closing the remaining part of the wound by sutures. The pressure of the quilled suture upon the vessels of the thigh, obstructed the passage of the returning blood, and caused œdematous swelling to some extent in one limb; I relieved this by incisions, and at the end of about four or five days, removed the sticks and ligatures. The removal of the sutures relieved the swelling, and the animal recovered rapidly. Some physis which I gave her, operated freely, without occasioning any disposition in the parts to return. The operation was performed in August, and the bitch was used during the shooting season of September and October, and proved equal to any exertion that was required. Having subsequently removed the pouch which contained the protruded bowels, no trace of the deformity remained. I had the satisfaction of seeing my canine patient perform her duties with alacrity and vigour; and of receiving with the apparent gratitude of the animal the warmest thanks of her master.

"The radical cure in this case, appeared to me to be owing to the return of the hernial sac. It was separated from a very close adhesion to the hernial pouch, by means of the fingers and the knife, and it was returned in this state of recent separation, into the abdomen, ready to attach and unite itself to any surface to which it was opposed. By its inclination to descend again, it was, although kept in the abdomen, closely applied to the abdominal ring, over the interior of which it without doubt closely adhered, and by such means completed, although in a manner I did not contemplate, the radical cure." 115.

Whether any operation of this kind is likely to be generally adopted by the profession we shall not pretend to decide, suffice it that the above was its issue in Mr. Stephens' canine friend. We fear that our limits will prevent our noticing that portion of the work which treats of mechanical obstruction of the bowels within the abdomen. We may say that the author displays much acuteness in his observations, and great boldness (shall we say temerity?) in his *methodus medendi*, or rather *operandi*. Those who wish to learn his particular views may consult the work itself, of which we can sincerely pronounce a favourable opinion, although we are far from agreeing in every respect with the author. It is for the public to decide who is right and who is wrong, and no doubt Mr. Stephens is perfectly willing to submit to its ordeal.

XII.

A SYSTEM OF HUMAN ANATOMY. TRANSLATED FROM THE FRENCH OF H. CLOQUET, M. D. By *Robert Knox*, M. D. F. R. S. E. &c. With Notes and a corrected Nomenclature. 1 vol. 8vo. pp. 840. Edinburgh, 1828.

ELEMENTARY works are pouring in upon us from every quarter. In one number of our Journal we are called upon to notice two important publications on anatomy—one by Mr. Quain, a compilation—the present by Dr. Knox, a translation. These two works are very differently constructed—the former on the English model—the latter on the French. The distinctive characters of the two plans will be best understood by the following quotation from Dr. Knox's preface.

"The peculiar excellence and merit of British anatomical writers seems to be mainly connected with the originality of the views brought forward in their monographs, and even in their more voluminous systematic works: the extreme accuracy of detail, whenever the subject to be described leads to practical results; the splendid and happy physiological and pathological deductions which abound in their writings; but above all, with the discovery, if I may say so, and perfection of those descriptions of the more important surgical regions of the body, a work begun and finished solely by British anatomists and surgeons.

"These seem to me (for I must speak with diffidence, aware of my inherent nationality) a few of the excellencies which abound in British writers; by their very presence they exclude other good qualities, which, though of a more humble and inferior cast, are yet of the utmost consequence to the anatomical student.

"The excellence here alluded to, which we in vain look for in British, and but seldom fail to meet with in Continental writers (so religiously have they copied each other from Winslow to the present day,) is that of presenting to the anatomical student a clear, methodical, and concise, yet minute description of all the parts of the human body, with brief allusions only to the uses of the parts, and with none of those alarming digressions, interlarding and disfiguring the works of English anatomists." iv.

That the plan of intermixing pathology, surgery, and physiology, with pure anatomy, is the prevailing taste of the English, there can be no doubt; and that it has its attractions and advantages it would be useless to deny. Yet, on the principle of division of labour, and utility of *method*, it would not be difficult to show that terse and minute anatomical description, uninterrupted by surgical or physiological digressions, is a species of knowledge which is of great utility in the tuition, and consequently in the learning of anatomy. It is curious that the English have adopted the diffuse but original style of Galen, Vesalius, and some other of the older anatomical writers—while the French have servilely copied the rigid and exact style of Winslow.

"And yet with all the contempt one naturally feels for mere copyists, it must be admitted that the model followed by the Continental anatomist is, in many respects, better than our own, and that the diffuse wandering style of Galen and Vesalius, with their monstrosously absurd theories and endless repetitions, will not stand a comparison with the concise and energetic manner of Winslow, his mechanical accuracy, and his brief yet perspicuous manner." iv.

The followers of Winslow, on the Continent, among whom may be enumerated Soëmmering, Sabatier, Boyer, Portal, Bichat, Cloquet, and others, have founded their claims to merit on the fidelity of their descriptions, as *text-books*, aiming at no higher character—"and if," says Dr. Knox, "we deny to them the smallest title to genius or originality, the praise of clearness of description, admirable general perspicuity, happy arrangement and minute description, cannot possibly be withheld."

After the peace of 1814, and when a free communication was established between this country and France, surgical anatomy was imported into the latter country—became quite the rage—and appears to have been carried to an almost ridiculous excess. The following extract from Dr. Knox's preface will excite a smile, while it shows that, in the "INTELLECTUAL CITY," there are feuds and jealousies going on, as well as in the "MODERN BABYLON."

"They dispute about the *discovery* of parts which all anatomists have seen since the days of Herophilus; but such is the method and regularity of their works, and so laudably anxious are they that no important or novel consideration should escape them, that Mr. Blandin, (I must choose one specimen,) describing all the possible surgical anatomy of, and all the surgical operations which can possibly be performed in and about the head, (which he invariably designates by the imposing philosophic name of 'Encephalic extremity of the Trunk,') very gravely, and with the best faith in the world, informs his readers, that 'the head cannot be removed by amputation in the living subject without stopping respiration, and producing other inconveniences which render this operation unhappily inadmissible.'" iv.

Dr. Knox passes some other sly criticisms on his countrymen. He observes that the Continental anatomical writers describe the anatomy of the whole body with equal care, and with nearly equal minuteness. They do not presume to prejudge the relative importance of certain regions of the body, and to measure the degree of attention which the student and surgeon should devote to some, and the measure of neglect to other parts of the body.

"They do not inculcate to their readers that the muscles of the back are altogether unimportant; a minute knowledge of the bones unnecessary; the smaller arteries not worth remembering, and the anatomy of the nerves absolutely useless. These doctrines, wherever or by whomsoever taught, are peculiarly dangerous to the student; if listened to for a moment, they must destroy his views for ever.—*Pref.* vii.

The following sarcastic remarks are, we conceive, levelled at some promi-

* " 'Mr. Blandin ought not to despair: we now know, by accurate experiments made before respectable witnesses, that the human body may be ripped up alive, and yet the person escape, nay, even recover. Limbs are hewn off *against time*; if one man amputates at the hip-joint, and requires only five minutes for his operation, another boasts of his greater expertness in quartering the body, as he requires only a minute and a half to perform a similar operation; and although the operation should accidentally be unnecessary, and therefore cruel and scandalous, and moreover fatal, he advertises it in the daily newspapers, 'that his light may not shine under a bushel.' It is said, moreover, that an attempt is to be made to remove the upper jaw in a case of diseased face; now, should the cranium of the patient happen to be furnished after the same fashion as the operator, its removal may possibly be unattended by any bad results. The case may even figure as one of 'amputation of the head.' "

nent characters in Edinburgh, whose names we shall not attempt to decipher, though it might not be extremely difficult to unriddle the allusion.

"There are *many* persons, indeed, some of them, I regret to say, teachers of anatomy, who seem to think that anatomy in itself is the most tiresome, disgusting, and uninteresting of all studies; and, proceeding on this notion, pregnant with dangerous consequences to the profession and to the science, have taught anatomy as a mere appendage to surgery; and carrying into a liberal profession their own empirical views, have rejected, and anxiously taught others to reject every anatomical fact which did not lead to the 'dextrous performance of some cunning and skilful operation in surgery, the execution of which should be most profitable to the surgeon;' or they have compounded it, to use a professional phrase and metaphor, with medicine, physiology, and pathology, as if anatomy were a nauseous draught, requiring to be masked by some palatable, overpowering ingredient. And this is the language held of a science, most exact in itself, most interesting and important to the human race, the foundation of the philosophy of living beings, and the only basis on which the superstructure of medicine, surgery, and physiology can be raised." vii.

We shall not attempt to decide the point between the French and English anatomists, respecting the plan of anatomical works. The English, as we said before, mingle surgery and practical remarks with descriptive anatomy—the French prefer pure anatomical description. The following is the sentiment of Dr. Knox, a teacher of anatomy, and one who ought to be a judge.

"Systematic compilations or treatises on human anatomy which simply describe the structure, appearance, and general situation of the organs to each other, constitute a species of writing seldom attempted by British writers: and yet these are of all others, the kind of works most essential to the student in anatomy: or rather, I should say, to him indispensable. Our manuals for the use of the dissecting-room, so admirable for the details of surgical anatomy, are generally vague, deficient, and not unfrequently incorrect in their descriptions of many parts of the body. Our systematic works seem avowedly written as much for amusement as for instruction, so numerous and extraordinary are the digressions they contain. But whether or not these criticisms be strictly just, I felt I could not possibly dismiss from my mind that important truth, that works conceived and executed after the model of Winslow, Sabatier, Portal, Soëmmering and others, do not exist in the English language; a truth daily obtruded on me by my duties as a teacher of anatomy, and unhappily annually giving rise to the statement required to be made by me to one of the most numerous classes of anatomical students with which the public has ever honoured any individual, namely, that the text book of my lectures must be selected from amongst a class of authors infinitely inferior in genius, but superior in method and good taste, to those of my country." viii.

It is hardly necessary to add, that Cloquet's work has been selected by Dr. Knox as an anatomical treatise, than which nothing superior has yet been offered to the public. It is, of course, purely descriptive—and we believe the descriptions are scrupulously correct.

We can only give a single specimen of the matter and manner of this work, taken at random by opening the book nearly in the middle!

"OF THE DUODENUM.

"a. CONFORMATION AND GENERAL DISPOSITION.

"2095. The *Duodenum*,* by which the intestines properly so called commence, im-

"* It is so named on account of its length being commonly estimated at twelve finger breadths."

mediately succeeds to the stomach. It is less voluminous than that organ, but has a greater diameter than the rest of the digestive canal, and is susceptible of great dilatation. It occupies the deep middle part of the abdomen, where it is concealed by the transverse mesocolon or by the stomach.

"2096. The direction of the duodenum is such that it may be divided into three portions. The first, which is about two inches long, commences at the valve of the pylorus (2091.) proceeds horizontally backwards and to the right, and ends near the neck of the gall-bladder, uniting angularly with the second, which has a variable length, and which descends vertically and a little to the left, as far as the third lumbar vertebra. The third portion is directly continuous with the second, with which it does not form an angle. It proceeds transversely to the left, before the vertebral column, and ends with being directed upwards and forwards, toward the upper extremity of the mesentery, above the superior mesenteric vessels, which cross its direction, and which are embraced by a kind of curve which it forms for them.

"The first portion is covered, in the greater part of the extent, by the peritoneum, and is in connection with the hepato-gastric omentum. It is often tinged yellow by the transudation of the bile. The second has no other connection with the peritoneum than that of being covered by the upper lamina of the transverse mesocolon. The third is contained between the two laminae of that fold.

"From this disposition, the duodenum forms a kind of semicircle which circumscribes the pancreas, and has its concavity to the left, and its convexity to the right. It only appears to be kept in a fixed position in its two inferior thirds.

"2097. The relations of the duodenum to the neighbouring organs are the following: *above*, it corresponds to the liver and part of the neck of the gall-bladder; *below*, it is limited by the inferior lamina of the transverse mesocolon; *anteriorly*, it is covered by the superior lamina of this fold inferiorly, and by the stomach and right extremity of the arch of the colon above; *posteriorly*, it is applied upon the anterior and right lateral parts of the vertebral column, the right kidney, the vena cava inferior, the aorta, and the right pillar of the diaphragm. By its whole inner side, it embraces the pancreas, from which it is separated below by the superior mesenteric vessels. Its outer side is immersed in the sub-peritoneal cellular tissue, between the right kidney and the ascending portion of the colon.

"2098. The *inner surface* of the duodenum is mucous like that of the stomach. There is seen upon it a multitude of circular folds, which differ extremely in their configuration, and are very close to each other. These are the *va'vulae conniventes*. They are formed by the mucous membrane alone, and their existence is constant in all states of the duodenum. They project three or four lines in its cavity. Some of them are oblique and cross each other, or run into those next them; their length is not the same in all; they never form entire circles, only representing arches which embrace the half, two-thirds or three-fourths of the intestine, whose pointed extremities advance unequally beyond each other. Their breadth varies as much as their length. The use assigned to them is that of retarding the progress of the alimentary substances for the purpose of favouring the absorption of the chyle. The reticular tissue which we pointed out at the inner surface of the stomach shews itself in the depth of the grooves by which they are separated.

"2099. There is also observed in the interior of the duodenum, at the point of union of the second and third curves, a small tubercle, at the summit of which are seen the united or isolated orifices of the choledochus and pancreatic ducts.

"2100. At its lower part the duodenum is continuous with the small intestine, without any very distinct line of demarcation being observed.

"b ORGANIZATION OF THE DUODENUM."

"2101. From what we have just said, it has already been seen that the duodenum is not, like the stomach, invested with a serous membrane, the peritoneum being only applied upon it in a small portion of its extent. It is to this partial deficiency of the peritoneal coat that the intestine owes the faculty of dilating to such a degree as almost to equal the stomach in size.

"2102. *Muscular Membrane or Coat.* It is pretty thick. All its fibres are transverse or circular, and have a great similarity to those of the stomach. The layer of dense and solid cellular tissue which unites it to the mucous membrane was called the *Nervous Coat* by the older anatomists.

"2103. *Mucous Membrane or Coat.* It is reddish, very soft, spongy, villous, and as if downy. It is of its replication that the valvulæ conniventes are formed. It possesses all the characters of the internal membrane of the stomach, and is truly continuous with it (2089.) Between it and the preceding coat, there is observed a great quantity of flattened mucous follicles, the orifices of which are more visible than in the stomach.

"2104. The arteries of the duodenum are very numerous, and come from the superior mesenteric, pyloric, pancreatic, and gastro-epiploic arteries. Its veins exactly correspond to the arteries. Its lacteals and lymphatics go to the ganglia situated above the pancreas. Its nerves come from the solar plexus (1844") 609.

Whatever difference of opinion may exist as to the superiority of the French or English plans, there can be no doubt that the present work offers a more dense and accurate description of the structure of the human body than can be found in any work of similar size in the English language.

XIII.

THE INFLUENCE OF CLIMATE IN THE PREVENTION AND CURE OF CHRONIC DISEASES, MORE PARTICULARLY OF THE CHEST AND DIGESTIVE ORGANS: COMPRISING AN ACCOUNT OF THE PRINCIPAL PLACES RESORTED TO BY INVALIDS IN ENGLAND AND THE SOUTH OF EUROPE; A COMPARATIVE ESTIMATE OF THEIR RESPECTIVE MERITS IN PARTICULAR DISEASES; AND GENERAL DIRECTIONS FOR INVALIDS WHILE TRAVELLING AND RESIDING ABROAD. WITH AN APPENDIX, CONTAINING A SERIES OF TABLES ON CLIMATE. By James Clark, M. D., &c. 8vo. pp. 328. London. June 1829.

THE influence of climate on the moral and physical character of man, as well as on his health, has not ceased to attract the attention of philosophers and physicians from Hippocrates to Cabanis—or (to bring things to the very level of the times) Dr. James Clark. The subject is exceedingly extensive. An able foreign writer, in an article on climate, tells us, that, in a Hygienic point of view alone, the influence of climate embraces, "a consideration of all those alterations produced in the human body by the air we breathe, the waters we drink, the localities of our residence—the region of the earth, the seasons of the year, the prevailing winds, the temperature, the elevation or depression of surface, the dryness or humidity, the fertility or

sterility of the soil—the food which that soil produces, &c.” A treatise so complete in all its parts, as to meet the views of M. Virey, (the author alluded to,) is not to be expected from any one pen. It would require a work nearly as large as that of Dr. Good on the Study of Medicine. We grant that *writers* might be found for such an undertaking—but not *readers*. In English literature, as well as in Irish agriculture, there is an important class of personages, who may be denominated MIDDLE-MEN—without whom the fields of science would lie waste. These personages have an especial eye to business—(and truly we do not blame them on this account)—by which vigilance they are enabled pretty clearly to foresee whether or not the SUB-LETTING process will flourish—in other words, whether or not a book will *sell* after the expensive preliminary of *printing*. When we connect *expense* with *printing*, and make no allusion to the expenditure of brains in composition, we are influenced by the prevailing ideas of the MIDDLE-MEN, who assure us that there is little or no expenditure of brain on these occasions, in general—and that where there is such expenditure, the proprietor cannot possibly vest his intellectual property in better stock than that of—the PUBLIC FUNDS.

The author of the work before us appears to have been as fortunate in the choice of a subject of investigation, as industrious in the collection of materials for its construction. No one who looks abroad over the surface of this globe, even on maps or in books, and observes the infinite variety of form, colour, constitution, and moral character, which the different nations, tribes, and races present, can for a moment doubt, that all, or almost all these varieties (we mean the *physical* peculiarities) have been worked by the slow hand of time, through the instrumentality of *climate*, in the extended sense of the word. If, again, we narrowly inspect the different localities of the same climate or country, we shall see corresponding physical peculiarities impressed on the forms, and on the temperaments of the inhabitants. This being the case, who can doubt that considerable influence may be exerted on the human constitution by the transition alone from one climate to another of a different character? The *injurious* effects of these transitions are, unfortunately, but too familiar to our eyes. Look at those who have returned from 21 years transportation among the jungles, swamps, and burning sands of the East—or the deadly mangrove-shores, or savannahs of the West. They have dearly paid for their pagodas and sugar-hogsheads! They have exchanged the clear complexion and rosy tint with which they departed from the chalky cliffs, for—what shall we say?—the tough, the torpid, and the tumeric coat of the turtle! But have we no bright side to the picture? Is it not probable that the azure skies and balmy airs of Italy—the clear, elastic, mountain-breeze of the Alps and Pyrenees—the purified zephyrs of the Azores, may, in many disordered states of the British constitution, contribute materially to the renovation of health and tranquillity of mind? We think there cannot be a doubt of this fact. Even when disorders of function have passed the awful boundary, and changed into diseases of structure, some mitigation of suffering, some retardation of the final event, some improvement in the condition of impaired organs, may possibly be effected by a judicious change of climate. But where are we to look for any *precise* information, any definite ideas as to the climates—and still *more* the localities of climates, adapted to particular diseases or tempera-

ments of constitution? The long and sanguinary warfare which *morally* insulated the inhabitants of this country, and banished them from the Continent, not only prevented the acquisition of all medico-topographical knowledge of this kind, but rendered it useless if it could have been obtained. The short period of peace has given an astonishing impulse to British medical travellers, and has accumulated more information on the subjects of medical topography and the effects of climate (as far as Continental Europe is concerned) than the preceding half century. Dr. Clark, like several of his naval and military brethren, has had ample opportunities of studying the effects of climate, in some of the fairest regions of the earth, and the present work will amply prove that he has not suffered those opportunities to pass unavailed.

"Et mores hominum multorum vidit et urbes."

Besides the South of Europe, Dr. Clark has recently made himself acquainted with the milder parts of England, to which invalids resort, or might resort with advantage, as a succedaneum for the more brilliant but expensive and inconvenient skies of Italy or France.

The work is divided into two parts—in the first of which, the author has endeavoured to determine the general physical characters of the milder climates of southern Europe and England—to point out the manner in which the climate of different places is modified by local circumstances—and to compare these places relatively to their influence on disease. In the second part, Dr. C. has given some account of the principal diseases which are benefitted by a mild climate. Although we think that the two parts would have been more beneficially blended in one, by which much repetition and reference from one part to another would have been avoided; yet we can offer no serious objection to the plan which Dr. C. has judged it prudent to adopt. The two great classes of disease into which our author has gone somewhat minutely, are pulmonary consumption and disorders of the digestive organs. The former class has always been associated in the mind with change of climate: but it is very questionable whether the digestive organs are not more improved by "a continuous and rapid change of climate, as well as of scene," than the pulmonary apparatus.

After some introductory remarks on the difficulty of investigating the physical influence of climate—and even the physical characters of the same, our author proceeds to a kind of natural grouping or classification of the different places to which invalids resort.

"Thus, we find that the South-West of England (with the exception of the extreme western point of the peninsula of Cornwall, which has a climate peculiar to itself) resembles very closely the South-West of France; that the South-East of France is opposed in every respect to the South-West of France; that the climate of Italy differs from both; that the climate of Nice partakes of the qualities of the Italian as well as of that of Provence; and that Madeira, or the climate of the Eastern Atlantic, can be classed with neither of the foregoing." 16.

I. ENGLAND.

Before crossing the Alps or the Atlantic in search of a salutary climate, we ought to investigate the resources of our own. Dr. C. is inclined to

think that "England possesses advantages which have not been made so fully available in this way, as they might have been:"—in short, that many invalids have gone abroad in search of that which was at their own doors. It is probably with health as with happiness—which—

—— Still so near us, yet beyond us lies,
O'erlooked, seen double by the fool and wise!

Or still more likely it is the journey which we undertake in quest of health, and the cheering hope of attaining it, rather than the spot of ground where it is said to reside, that produce such salutary effects on the invalid.

Dr. Clark starts his inquiries from the great Babylon—"the most important point in our survey"—that MART of every thing estimable and detestable—and, (as *physical character* is the subject of investigation) that MONOPOLY of carbon and hydrogen—whose AIR is chiefly composed of powdered flint and sublimed sea-coal—and whose waters, like the blood, are perpetually running in a circle—from the mouth to the anus—from the anus to the mouth!

The mean annual temperature of London is 50°, 39', being about a degree and a half above that of the environs, with the exception perhaps of Brompton and Chelsea, which are confessedly sheltered. That London is, comparatively speaking, a healthy metropolis, we can have no doubt. A thousand circumstances conspire to its salubrity, when its forty or fifty millions of inhabitants are considered;* yet, as a point de depart, we must, pro formâ, set down the modern Babylon as possessing the minimum of salubrity.

SOUTHERN COAST.

Various places along this extensive sea-board are frequented by invalids in search of milder seasons than the interior of England presents. Of these the principal points are Hastings, Brighton, Chichester, Gosport, Southampton, and the Isle of Wight. The mean temperature of the southern coast during the Winter months, is only one or two degrees *above* that of London—in the Summer it is about the same ratio *below* the heat of the metropolis. The range of temperature, too, is less on the coast than in the interior—in short, the climate is more steady. The general character of the line of coast from Worthing to Southampton is said, by Dr. Clark, to be "humid and heavy," without protection from winds, and, in many parts, *aguish*. After alluding to this aguish disposition, our author informs us that CHICHESTER "is certainly the best Winter residence for that class of invalids likely to be benefited by a climate of *this* kind." We confess our opinion that the doctors of this malarious district are much more likely to be benefited by the climate than any class of invalids who may resort thither.

* This estimation may startle those who only calculate on men, women, and children, as the inhabitants of a town or city. We are not inclined to maintain that a horse deteriorates the atmosphere as much as a man. On the contrary, we believe him to be a much more cleanly, and a much more useful animal. But if we contemplate the chain of animated beings in London, from the "half-reasoning elephant" down to the gnat, and up again to the *false-reasoning*, and, too often, *no-reasoning* lord of the creation, it will be acknowledged that, if we had put billions or trillions for millions, we should not have been far wrong.

Hastings, Brighton, and the Isle of Wight, are excepted from the character of climate above described, and are separately treated of by the author. Of Hastings we need say little, since Dr. Harwood's work has made the medical topography and climate of that watering place well known. We shall make room for a short extract.

"It must be admitted, indeed, that one of the principal disadvantages of Hastings, is its confined situation, by which its climate is limited to a small local extent, owing to the close manner in which it is hemmed in on the sea by the steep and high cliffs which rise immediately behind it. This circumstance, moreover, gives the climate of this place a peculiar character relatively to its effect upon certain constitutions. With respect to the merits of the climate of Hastings, it may be observed, that its superiority in winter appears to be confined chiefly to the months of January and February, but that during these and the spring months, it has the advantage of all the other places frequented on the South Coast in warmth and shelter from the cold winds, (with the exception, perhaps, of Undercliff, in the Isle of Wight,) and, consequently, during this period affords the best residence for those invalids to whom the climate of this coast is adapted. During the autumn months, and even December, the climate of Brighton appears to be somewhat warmer and more steady than that of Hastings.

"In its effects on disease, the climate of Hastings corresponds with that of the South Coast generally: it is, however, according to my experience, unfavourable in nervous complaints, to persons subject to head-ach, and to languid or relaxed habits. For persons also who have suffered from ague, I should consider Hastings as a very doubtful residence. There is a degree of closeness and confinement in the atmosphere of the lower and more sheltered parts which is unfavourable to the former class of invalids; and agues are not unfrequent about Hastings." 27.

BRIGHTON.

The climate of this favourite spot is the reverse of Hastings, as far as closeness is concerned—being dry, elastic, and bracing. To people of nervous or relaxed habits, therefore, it is much more favourable than its more sheltered neighbour. The Autumn and beginning of Winter are supposed to be the best seasons for Brighton.

"The early part of the spring is the worst season at Brighton, its exposure to the north-easterly winds rendering it an unfavourable climate at this season, to all persons disposed to pulmonary or other diseases accompanied with much general or local irritation. As examples of such, I may mention affections of the trachea and bronchia of the dry irritable kind, and dyspepsia arising from an irritated state of the stomach.

"For the greater number of valetudinarians who frequent the Southern coast, it is probable that the autumn and beginning of winter may be passed with the greatest advantage at Brighton;—January and February at Hastings; and that some sheltered situation in the interior, is preferable to any part of the coast in the spring." 28.

ISLE OF WIGHT.

This "Garden of England," as it has been called, appears to be more resorted to for pleasure by the tourist, than for health by the invalid.

"The only part of this island well adapted as a winter residence for invalids, is that denominated *Undercliff*, which comprehends a tract of country about six miles in length, and from a quarter to half a mile in breadth, situated on the South-East coast, between the villages of Bonchurch and Niton. This singular district consists of a series of irregular

terraces, formed by fragments of rocks of chalk and sandstone, and the alluvia of a rich loam, which have been detached from the cliffs and hills above, and deposited upon a substratum of blue marl. The whole of the Undercliff, which presents in many places scenery of the greatest beauty, is dry and free from moist or impure exhalations, and is completely sheltered from the north, north-east, north-west, and west winds, by a range of lofty downs, or hills, of chalk and sandstone, which rise boldly from the upper termination of these terraces, in elevations varying from four to six and seven hundred feet; leaving Undercliff open only in a direct line to the south-east, and obliquely to the east and south-west winds, which rarely blow here with great force. 'On this part of the coast,' says Dr. Lempriere, 'we have a climate as favourable to the invalid as any part of England can afford. This is proved not only by thermometrical observation, but also by the state of vegetation during the colder months of the year, when the myrtle, geranium, and many other exotic plants flourish luxuriantly in the open air; and that even in seasons when the severity of the frost has destroyed the green-house plants in the north side of the island, although placed in sheltered apartments. Snow is rarely seen, and frosts are only partially felt here.'

"The mildness of the climate, the dry nature of the soil of Undercliff, and the extent to which it is sheltered from cold winds by affording ample space for exercise, are great advantages to invalids threatened with pulmonary disease, or others to whom exercise in the open air, in a mild climate, is desirable. In this respect, it is probably superior to any place in this line of coast. The principal objections to it, as a residence for invalids, are the scantiness of accommodations, and its distance from medical advice. On this account, it is perhaps, at present, rather calculated for the retreat of the valetudinarian, who does not stand in need of much medical attendance, than for the real invalid." 30.

SOUTH WEST COAST OF DEVON.

The warmer parts of this district have a temperature nearly two degrees higher than the coasts of Sussex and Hampshire, and three or four above London. It is in the months of November, December, and January, that this difference is most remarkable, amounting, on an average, to five degrees above London. This difference, too, is chiefly observable in the night. TORQUAY is now becoming the favourite resort for invalids.

"The general character of the climate of this coast, is soft and humid. Torquay is certainly drier than the other places, and almost entirely free from fogs. This drier state of the atmosphere probably arises, in part, from the limestone rocks, which are confined to the neighbourhood of this place, and partly from its position between the two streams, the Dart and the Teign, by which the rain is in some degree attracted. Torquay is also very remarkably protected from north-east winds, the great evil of our spring climate. It is likewise well sheltered from the north-west. This protection from winds, extends also over a very considerable tract of beautiful country, abounding in every variety of landscape; so that there is scarcely a wind that blows, from which the invalid will not be able to find a shelter for exercise either on foot or horseback. In this respect, Torquay is much superior to any other place we have noticed. It possesses all the advantages of the South-Western climate in the highest degree, and, with the exception of its exposure to the south-west gales, (one of the evils of this coast,) partakes less of the disadvantages of it than any other place having accommodations for invalids. Of the places on this coast frequented by invalids, Dawlish perhaps deserves the preference after Torquay;—it is less dry and more exposed to Easterly winds than the latter place. Exmouth is tolerably well sheltered, but damp and subject to fogs. Sidmouth, as will be perceived by a reference to the tables, possesses very little of the characteristic qualities of this climate. It is open to the valley of the Sid, and exposed to currents of cold wind from the mountains whence

the stream takes its rise. It is therefore inferior to all the other places as a winter or spring residence. It may however be an agreeable summer or autumn watering place." 33.

The interior of Devonshire suffers considerably less from violent winds and storms than the coast; and some of its sheltered vallies may probably afford protection from the East winds during Spring—but in Winter, its temperature is considerably lower than the coast.

"The climate of the coast of Devonshire is found very beneficial in various forms of disease. I have known it serviceable in chronic affections of the throat, trachea and bronchia, proceeding from irritation, or a low degree of inflammation of these parts, and attended with a dry cough, or with little expectoration; likewise, in an irritable or morbidly sensitive state of the stomach, and in hypochondriacal affections, the consequence of such a state. In dysmenorrhœa and all nervous sympathetic affections dependent on that disorder; in a highly sensitive state of the nervous system, and in most diseases of general irritation, advantage may be expected from this climate. On the other hand, it certainly exerts an unfavourable influence on nervous headaches, and on all nervous complaints arising from relaxation or want of tone of the nervous system; It is injurious also in *pure dyspepsia, when the tone and sensibility of the stomach are below par, as indicated by pale lips, a pale clammy state of the tongue, and languid circulation*; and it will be found no less unfavourable in menorrhagia, in leucorrhœa, and all diseases accompanied with much general relaxation of the system, or with much discharge from the affected organs."* 35.

In respect to CONSUMPTION, our author here, as almost every where else, has maintained a rigid caution in pronouncing any thing positive.

"But this much I may venture to advance, that as the invalid will be exposed to less rigorous cold, and for a shorter season,—will have more hours of fine weather, and, consequently, more exercise in the open air,—he gives himself a better chance by passing the winter here, than he could have in any more northern part of our Island. To compare it, also, in this respect, with the climate of the southern continent of Europe, is no easy task. In the South, the invalid has finer days, a drier air, and more constant weather; but the transitions of temperature, though less frequent, are more considerable. In the nights I believe invalids are often exposed to severer cold than here; and this arises partly from the great range of temperature, and partly from the imperfect manner they are protected from the cold at night, by the bad arrangement of the houses, chimnies, &c." 35.

PENZANCE next engages our author's attention—and Dr. Forbes's publi-

* We have marked a passage in italics, in the above quotation, because we believe the worthy author has involved himself in a degree of inconsistency—as well as of error, by certain expressions there. In the foregoing passage we are told that, in *pure dyspepsia*, the *sensibility* of the stomach is "below par." Now, on turning to page 181 of the work, we find the morbid conditions of the stomach in dyspepsia divided into two kinds:—"1mo. An irritated state of the mucous surface of the stomach of an inflammatory character; and, 2do. A highly increased degree of *sensibility of the nerves of the same part*, accompanied mostly with a loss of tone of the whole viscus. The latter affection constitutes the *pure or nervous dyspepsia*." The inconsistency in these two passages we did not expect in so cautious a pathologist as Dr. Clark. But we shall have an opportunity, in the second article of this analysis, to enter more fully on the subject of *dyspepsia*—a subject which occupies a considerable part of the volume under review.

cation on the climate of that peculiar spot, furnishes, of course, the materials of this section. It is only necessary to remark here, that—

"On examining the progression of temperature for the twenty-four hours, at these two places, we find that, in winter, it is during the night that the greater part of this difference of temperature occurs; Penzance being nearly on an average, six degrees and a half warmer than London during the night; and only little more than three degrees warmer during the day. This distinction ought to afford matter for the physician's consideration. But this equal distribution of heat throughout the year at Penzance, which we have compared so advantageously with that of London, is still more striking when compared with that of the South of Europe. Madeira is the only climate which we have examined that is superior to Penzance in this quality." 39.

It appears that the whole advantage of Penzance, as compared with the South of Europe, occurs *during the night*, in Winter. It is during the day only, that the South of Europe claims superiority as to temperature. Thus, in Winter, at seven o'clock in the morning, there is little difference between Rome and Penzance; but, at two o'clock in the afternoon, the temperature of the Italian Metropolis is seven degrees above that of the Land's End of England.

"In the duration of the same temperature, as shown by the mean variation of successive days, the climate of Penzance excels all the northern climates, and nearly equals Rome and Nice in this respect; but as compared with Madeira, its temperature from day to day varies twice as much." 41.

In Spring, Penzance loses its superiority of climate. In April and May, it appears inferior to the South-western coast—and very much so to the South-west of France. In Penzance there falls about twice as much rain as in London. The storms, too, are violent and frequent—which frequency and violence, says Dr. Clarke, "constitute one of the greatest disadvantages of its climate." The following quotation from the recent edition of *Laennec*, by Dr. Forbes, will show the present opinion of Dr. F. on the climate of Penzance, as far as Pulmonary phthisis is concerned.

"During a residence of five years," says Dr. Forbes, "at Penzance, in Cornwall, a place much frequented by consumptive patients on account of the mildness and equability of its temperature, I had extensive opportunities of observing the effect of changes of climate in phthisis; and I am sorry to say that, in the greater number of cases, the change was not beneficial. This result, however, must not, in fairness be considered as derogating, in any considerable degree, either from the propriety of the practice, or the fitness of the situation; since it must be confessed that few of the invalids came to Penzance in that period of the disease when a cure could be expected, if indeed it were even possible. In no case of well marked tubercular phthisis did I witness a cure, or even a temporary alleviation, that could fairly be attributed to change of climate. In a good many cases, however, of chronic bronchitis, simulating phthisis, the health was greatly improved, and in some it was completely restored, from a state of great debility and seeming danger. In a few cases, also, of young persons who accompanied their diseased relatives, and in whom the hereditary predisposition was strongly marked, if there was not already evidence of nascent tubercles,—a great and striking improvement in the general health and strength followed within a short period after their arrival, and seemed fairly attributable to the combined influence of change of air, scene and habits." 48.

"* Dr. Forbes' Translation of *Laennec's Treatise on Diseases of the Chest*. Note by translator, 3d Edit. p. 73."

Our golden dreams of Penzance then, are at an end! But we shall add Dr. Clark's own opinion.

"The consumptive cases in which the soft humid atmosphere of this place is likely to prove beneficial, are those in which the disease is accompanied with an irritated state of the mucous membrane of the lungs, producing a dry cough, or one with little expectoration.

"In idiopathic tracheal and bronchial diseases of the same character, whether complicated with asthma, or otherwise, and also in certain pure cases of the latter disease, it is likely to be very beneficial. When, on the contrary, there exists a relaxed state of the general system, or a disposition to copious secretion from the bronchial membrane, whether idiopathic or symptomatic of a tuberculous state of the lungs, or where hæmoptysis has occurred, I believe the climate of the Land's-end will generally prove injurious." 49.

WEST OF ENGLAND.

Of this line of coast, we shall only notice CLIFTON, because we have reason to know that it is a very salutary spot, and, from its topography, capable of affording considerable variety of shelter or exposure, according to the nature of the case. Dr. Clark does not appear to have seen Clifton himself, at the time his book was in the press, but we understood from him that a subsequent visit impressed him strongly with the salubrity of the place. Drs. Nott and Chisholm afford the information contained in Dr. Clark's work. Dr. N. observes—

"To no spot in our kingdom can the valetudinarian fly, or can the physician consign his patient, for a re-establishment of health impaired by disease, where the purpose is more attainable, than in the neighbourhood of St. Vincent's Rock. The upland habitations on Clifton Hill during the Summer are delightful; and the sheltered situation of those round the Hotwells below, afford a warm residence in winter, equal at least to the boasted Coast of Devonshire; indeed it has one advantage over it, being free from its damp airs and mizzling rains." "Had Dr. Nott," observes Dr. Chisholm, "adverted to the influence of subincumbent lime stone, as constituting the salubrity of the atmosphere, his picture would have been more complete. The absence of every thing like marsh must certainly contribute greatly to the purity and wholesomeness of the Clifton air." "In the list of diseases admitted during four years into the dispensary, only one case of intermittent fever appeared, and that one was from the fenny district near Conglesbury, about twelve miles to the westward of Clifton." "The whole parish of Clifton," Dr. Chisholm further adds, "is a beautiful and romantic assemblage of woods, rock, water, pasture and down. It seems indeed singularly well adapted to the maintenance of health; the soil resting on immense beds of lime-stone rock, exposed to the southerly and westerly winds, for nearly three fourths of the year; with an atmosphere elastic, vivifying—not humid." 55.

Before taking leave of England and its climates, the invalid may naturally ask the profession what advantages are held out to him by the localities adverted to above? It may be observed that all those places are warmer in Winter than England generally—much warmer than the colder parts of it. Thus there is nearly as much difference between the South of Scotland and South of England, as between England and the South of Europe. An inhabitant of one of the coldest parts of our island therefore, would feel the influence of the climate of Hastings or Torquay, as much as a Londoner would feel the influence of the climate of Nice. As far as regards the influence of these milder spots of England on the scourge of

our country—phthisis, the author refers to the article on consumption in the second part of the work, and which we cannot here notice. The following extract is couched in Dr. Clark's characteristically cautious manner.

"I may remark here, that it is (with a few exceptions only) as a means of preventing the occurrence of tubercular disease in the lungs, when threatened, or of checking its progress in its early stages, that much benefit can be expected from any climate. With this view, the preference to be given to any of the milder situations in England, in such cases, must depend greatly on the nature of the person's constitution, and partly also on the other morbid states with which the consumptive tendency may be complicated. Keeping these circumstances (the whole of which have been noticed in the articles referred to) in mind, the situation which admits of the invalid's being most in the open air without risk from cold, should in general be preferred. The selection will, I believe, lie among the following places, as winter and spring residences,—Torquay, Undercliff, Hastings and Clifton; and perhaps, in the generality of cases, they will deserve the preference in the order stated. But I wish to be understood as speaking with much diffidence on this subject." 59.

FRANCE.

There is no more common feature or propensity in the human mind than to undervalue that which is familiar to us, or easily obtained; and to overestimate that which is foreign, or with difficulty procured. A man will come from Leeds or Manchester to London for medical advice, and prefer five or ten minutes routine questions, with a milk-and-water prescription, to a careful and accurate investigation of his complaint in his native place of residence with appropriate remedies. And, strange to say, he will often derive more benefit from the very same medicine, if prescribed in London, than if directed in Yorkshire. The influence of the imagination and of the journey can alone explain this enigma. So it is with climate. The hope of benefit from a foreign sky—the exercise of travelling to the new climate—and the impression of moral emotions from new scenes and new faces, often do much more towards the restoration of health than all the barometrical, thermometrical, or hygrometrical peculiarities of the selected residence.

The South of France has long been supposed to be the grand restorative of English constitutions, and many a sufferer has migrated thither to consign his or her mortal remains to unconsecrated earth. More correct views have lately been taken of the effects of climate, and of the diseases for which change of climate is desirable. The South of France may be classed under two divisions of climate, essentially differing from each other—the South-eastern, and the South-western.

WEST AND SOUTH-WEST.

This extends from Brittany to Bayonne, including L'Orient, Nantes, Bourdeaux, Pau, and Toulouse. The islands of Guernsey and Jersey are in the same range—or they may be considered as intermediate between that and the South-west coast of England. The S. W. coast of France, though less warm than the S. E. is yet more equal in its temperature, the range of which is less extensive throughout the year, and throughout the 24 hours. But it is more changeable from day to day. The mean annual temperature of the S. W. coast is about 55°—or 6° above that of England generally—

4° higher than the S. W. of England—3° below the S. E. of France—4° below Italy.

"The days are not so fine as in the south-eastern parts of the kingdom, but the nights are not so cold in relation to the days. The climate may be characterized as soft, relaxing, and rather wet. Hence it is suitable for complaints to which the south-east of France is injurious, particularly gastritic dyspepsia, (or dyspepsy depending on an inflammatory state of the stomach,) and the dry bronchial irritations. In that class of consumptive patients, therefore, in whom the disease is complicated with either or both of these affections, and in whom, consequently, there is a great susceptibility to the influence of dry, keen winds, this climate will generally agree. Laennec found the southern coast of Brittany very favourable to consumptive patients; and he also observed that the proportion of consumptive diseases in this part of France, was comparatively small." 65.

PAU.—This romantic spot, the capital of the lower Pyrenees, is the only place which our author considers it necessary to notice in this range of climate. It is finely situated on a ridge of gravelly hills overlooking an extensive valley to the North. The Pyrenees rise gradually behind it, their higher range being nearly 40 miles distant. PAU is about 150 miles from Bordeaux, and 50 from Bayonne. Dr. Playfair, now of Florence, resided at PAU several years, and favoured our author with an account of its climate, from which we shall make some extracts.

The mean annual temperature of this place is 4½° above London—3° higher than Penzance—5° lower than Marseilles, Nice, or Rome—10° lower than Madeira. The range of temperature between the warmest and coldest months is 32°—which is 6° wider than that of London or Rome.

According to Dr. Playfair, the good qualities of PAU may be summed up as follows:—

"Calmness, moderate cold, bright sunshine of considerable power, even in winter, a dry state of atmosphere, and of the soil, and rains of short duration. Against these must be placed—changeableness, the fine weather being as short-lived as the bad; rapid variations of temperature, within moderate limits, however; and heavy rains in autumn and spring.

"PAU is upon the whole healthy. Measles, scarlatina, and hooping-cough, are generally mild, and croup almost unknown. Intermitting and bilious fevers and rheumatism, are the most prevalent diseases. Rheumatism, according to a native author, is the only disease that is very common; it exists almost as an endemic, and stimulates or complicates almost all the other diseases. Goitre is also very common among the peasantry. The intermitting fevers occur chiefly among those of the peasants who frequent the low damp grounds in the neighbourhood. Scrofula is rare, and consumption not a common disease.

"There are several circumstances in the climate of PAU which render it a favourable residence for a certain class of invalids. The atmosphere, when it does not rain, is dry, and the weather fine, and there are neither fogs nor cold piercing winds. The characteristic quality of the climate, however, is the comparative mildness of its spring, and exemption from cold cutting winds. While the winter is 3° colder than the warmest parts of England, and 6° colder than Rome, the spring is 5½° warmer than the former, and only 2½° colder than the latter. The mildness of the spring, and its little liability to winds, render this place favourable to chronic affections of the larynx, trachea and bronchia. In gastritic dyspepsia also, Dr. Playfair has found it beneficial, and he has seen it useful in a few cases of asthma.

"Upon the whole, PAU appears to be one of the most desirable winter resi-

dences in the south-west part of France for invalids labouring under chronic affections of the mucous membranes. In the same class of diseases, the mineral waters of the Pyrenees are also very beneficial; and it may be convenient and advisable, for the invalid who has derived benefit from a course of these waters, to pass the winter at Pau, with a view of returning to them in the following season. These waters may also be easily transported to Pau, and used occasionally during the winter. Those of *Bonnes*, which retain their qualities, and are among the most efficacious of the waters of the Pyrenees, are at no great distance.

"With delicate children, Dr. Playfair found the climate agree well, especially when they removed to the mountains during the summer.

"Invalids labouring under, or liable to attacks of rheumatism, should, of course, avoid Pau. In bronchial diseases, also, when accompanied with much general relaxation of the system, and with copious expectoration and dyspnoea, the climate will not in general prove beneficial; and Dr. Playfair considers it too changeable in consumptive diseases.

"Invalids who mean to pass the winter at Pau should arrive there in the end of September, or very early in October. In selecting apartments, (which are not very numerous,) they should recollect that it is of importance that these should have a southern aspect.

"In fixing the period for leaving Pau, the destination of the person must be taken into account. If the object is to return to England, he may leave it in May; if he means to spend the summer among the Pyrenees, he should not leave it before June. The best season for using the mineral waters of the Pyrenees commences about the first of July." 73.

SOUTH-EAST OF FRANCE.

Various places in this quarter have been, at different times, extolled as affording a good Winter climate for *consumptive patients*, though recent experience has proved that this, like many other medical opinions, has been not merely erroneous, but injurious.

"That the country which has always been infested by the terrible *Circius*, should have been chosen for the residence of the delicate and sensitive sufferer from pulmonary disease, is a striking proof of the very loose observations upon which medical opinions respecting climate have been formed. How this practice of sending consumptive invalids to the south-east of France, originated, it is not of importance to inquire; that it is founded on error, I think I shall be able to prove, by a reference to the physical characters of the climate, the actual prevalence of consumption among the inhabitants, and, I may add, the total want of success which has attended the measure.

"The mean annual temperature of *Provence* generally, is 58°; that is, about 7° warmer than the south-west of England, 3° warmer than the southwest of France, and about a degree below Italy, including the climate of the lower Apennines. Its winter temperature is 43°; being only 1½° above the south-west of England, and 1° above the south-west of France, while it is 3° under Italy. The spring temperature is 55°; namely, 6° above the south-west of England, 1° above the south-west of France, and 2° below Italy. The temperature is distributed very unequally through the year; the difference of the mean of the warmest and the coldest months being 36°; this in the south-west of England is 22°, in the south-west of France 30°, in Italy 32°, and in Madeira only 14°." 74.

Dryness is one of the most remarkable characters of the climate of Provence. There is not half the annual fall of rain there that there is in *Penzance*. The annual number of days on which rain falls in Provence is 67, while in London it is 178.

"Again, in Provence (at Toulon) the quantity of water evaporated annually, is 40 inches, while at Paris it is 32 inches, at Gosport 25, and at London only 24. When these circumstances are taken into consideration, together with the high mean temperature of the place, Provence must appear the driest district of Europe. Indeed, the dry nature of the soil, and the bare parched aspect of the country, bespeak such a climate.

"The general character of the climate of the South-East of France, therefore, is dry, hot, harsh, and irritating. Absolutely warmer than our own Island, and the south-western parts of France, its temperature is distributed through the year and through the day with great irregularity. It has a much wider range of temperature than our own climate; this being, when compared to that of England, as three to one for the year, and as two to one for the day. Sometimes the winter is very rigorous. In 1709, the ports of Marseilles and Toulon were frozen over; and, indeed, in ordinary years, the orange-trees are occasionally killed by the cold in the most sheltered parts of Provence. The temperature no doubt remains more steady from day to day than our own; but its changes, though less frequent, are more sudden and extensive.

"This tract of country is subject also to keen, cold northerly winds, especially the *mistral*, which prevails during the winter and spring, and is most injurious to pulmonary diseases."

"Although decidedly improper for consumptive patients, and for those labouring under irritation of the mucous membranes of the digestive or pulmonary organs, more especially irritation of the stomach, larynx, or trachea, this climate may prove useful to invalids of a different class. On persons of a torpid, or relaxed habit of body, and of a gloomy, desponding cast of mind, with whom a moist relaxing atmosphere disagrees, the keen, bracing, dry air of Provence, and its brilliant skies, will often produce a beneficial effect. In some cases of chronic intermittent fevers also, it proves very favourable." 76.

The distinctive characters of Provence generally prevail more or less in the different places resorted to by invalids. The following is the order in which, Dr. Clark thinks, these places ought to be preferred; viz.:—Hyeres, Toulon, Marseilles, Montpellier, Aix, Nismes, Avignon.

It appears that in the *HÔTEL-DIEU* of Montpellier, in the year 1763, the total number of patients was 2756, of whom 154 died. Of these last, 55 were phthisical patients—in other words, more than one-third of the deaths was from consumption! It is unnecessary to adduce further evidence of the unfitness of Montpellier as a refuge for the phthisical invalid.

Marseilles is but little entitled, according to Dr. Clark, to claim any exemption from the general character of the climate of Provence. It is open to the full influence of the cold winds of the country—and especially to the *mistral*. There is no place in the neighbourhood of the city where invalids can take exercise. Aix is still worse.

HYERES. This little town is agreeably situated on the southern declivity of a hill, about two miles from the Mediterranean shore, and twelve miles from Toulon. It is the least exceptionable residence for the pulmonary invalid in Provence. It is in some degree protected from the northerly winds, and is situated in a beautiful open country, with orange trees under the town. There are some spots sheltered from the *mistral*, where the invalid might enjoy several hours in the open air almost every day; but the difficulty is to reach these at the proper time. The invalid dare not go out without a close carriage, and the roads will not admit of such a vehicle.

NICE.

The climate of this celebrated spot approximates more to that of Provence than to that of any other. Its mean annual temperature is 59° , being 9° warmer than London— 7° above Penzance— 1° below Rome—and 5° colder than Madeira. The mean temperature of Winter is 48° —that of Spring 56° . The temperature throughout the year is more equally distributed at Nice than at any place in the South of Europe, except Rome and Cadiz—the difference between the warmest and coldest months being only 28 degrees—and the mean difference of successive months only about 4 degrees. The range of temperature for the day is also less at Nice than in any part of the South of Europe—and, in steadiness of temperature it ranks next to Madeira.

"The weather at Nice during the winter is comparatively settled and fine, the atmosphere being generally clear, and the sky remarkable for its brilliancy. The temperature seldom sinks to the freezing point, and when it does, it is only during the night; so that vegetation is never altogether suspended. Indeed, at Nice, winter is a season of flowers, the dryness of the air rendering the same degree of cold less injurious to them, than it would be in a more humid atmosphere. The mild and equable character of the climate of Nice depends in a great measure on its position, with respect to the neighbouring mountains and the sea. The maritime Alps rise immediately behind it, and form a lofty barrier which shelters it from the northerly winds during winter; while, on the other hand, the heat during summer is moderated by the cool sea-breeze, which prevails here every day, with a regularity almost equal to that of a tropical climate. 'Cet alizé méditerranéen,' says M. Risso, 'toujours doux, frais et tranquille, s'élève périodiquement vers neuf à dix heures du matin, cesse souvent vers les quatre heures après midi, et s'étend dans l'intérieur de nos Alpes rarement au delà de huit myriamètres.' These circumstances explain the small annual range of temperature at this place, already noticed, and which a reference to the table in the appendix will show to be much less than at most parts of Italy.

"Notwithstanding the extent, however, to which Nice and its environs are encircled by mountains, (and it is so in a great measure from W. S. W., to E. S. E.,) it is by no means exempt from cold winds during the winter, and still less so during the spring. The easterly winds are the most prevalent during the latter season. They range from east to north-east, frequently blow with considerable force, and are often accompanied with a hazy, cloudy state of atmosphere. Sometimes this wind sets in towards the forenoon, at other times not until the afternoon. When the early part of the day is fine, it never should be lost for exercise; as the afternoon frequently proves cold and windy, after a calm, mild morning.

"From the north-west, or mistral, which is the scourge of Provence, Nice is pretty well sheltered. The force of this wind seems to be broken, and directed to the southward by the Estrelles, a chain of mountains between Frejus and Cannes. But, although the mistral is never experienced in its full power at Nice, or only towards its termination, when it takes a more westerly direction, (*la queue de la Mistral*, as it is called,) the keen, dry quality of the air is very sensibly felt whilst it prevails. It sets in generally about two or three o'clock in the afternoon, and is not of long duration. It seldom blows strong directly from the north, though the air is very sharp when the wind is in that quarter. The northerly gales appear to pass obliquely over Nice. The sirocco rarely blows, and when it does, it is gentle, and not unpleasant to the feelings of invalids in general. But the sharp, chilling, easterly winds are the greatest enemy the invalid has to contend with at this place; and the prevalence of these during the months of March and April is admitted, I believe, by all who have felt them, to form a great objection to this climate, especially in pulmonary diseases.

"The climate of Nice is altogether a very dry one. Rain falls chiefly during particular seasons. From the middle of October to the middle of November it generally rains a good deal; also about the winter solstice there is commonly some rain, and again, after the vernal equinox. The quantity of rain that falls during the year has not been accurately estimated.

"Upon the whole, in the physical qualities of its climate, Nice possesses some advantages over the neighbouring countries of Provence and Italy, inasmuch as it may be said to be free from the sirocco of the latter, and protected from the mistral of the former." 87.

Nice is a healthy place, being exempt from endemic diseases, and rarely troubled with epidemics. Catarrhal affections and inflammation of the lungs rank among the most prevailing diseases. The latter is very common in the Spring, and is generally complicated with irritation of the digestive organs. The proportion of deaths from pulmonary consumption in the Hospital of Nice, is said to be about one seventh of the whole mortality. "Gastric irritation appears to be the prevailing endemic disorder of the place." To Dr. Skirving, who has resided many years at Nice, our author is much indebted for the results of his observation on the influence of the Nicean climate on disease.

"In *Consumption*, the disease with which the climate of Nice has been chiefly associated in the minds of medical men in this country, little benefit I fear is to be expected. When this disease is complicated with an inflammatory, or highly irritable state of the mucous membranes of the larynx, trachea, or bronchia, or of the stomach, Nice is decidedly an unfavourable climate; and, without extreme care on the part of such patients, and a very strict regimen, the complaint will in all probability be aggravated by a residence here. Indeed, the cases of consumption which ought to be sent to Nice are of rare occurrence. If there are any such, it is when the disease exists in torpid habits, of little susceptibility, or not much disposed to irritation; and when it is free from the complications which have been just mentioned. Even the propriety of selecting Nice as a residence for persons merely threatened with consumption, will depend much upon the constitution of the individual. Dr. Skirving has met with cases which leave no doubt on his mind, that a residence for one or two winters often proves of advantage, as a preventive measure, in young persons threatened with this disease; and even in some cases when there was every reason to believe that tubercles already existed in the lungs, the climate has appeared to be useful. But in the advanced stage of consumption, his opinion, founded on eight years' experience, accords with what has been already stated; and this is still further supported by the testimony of Professor Fodéré of Strasbourg, who resided six years at Nice. Indeed, sending consumptive patients in this stage to Nice, will in a great majority of cases prove more injurious than beneficial.

"In *Chronic Bronchial* diseases, which often stimulate phthisis, very salutary effects are produced by a residence at this place. Such patients generally pass the winter with little comparative suffering from their complaint, and with benefit to their general health. They are here able to be much in the open air, whereas if they had remained in England, they would in all probability have been confined during the greater part of the winter to the house. The particular kind of bronchial disease most benefited by a residence at Nice, is that accompanied with copious expectoration, whether complicated with asthma (*humoral asthma*) or otherwise; and in the chronic catarrh of aged people it is particularly beneficial. This variety of bronchial disease is directly the reverse of that which is benefited by the south-west of France and of England; and I think it important here to remark, that unless the distinctions which I have pointed out in bronchial diseases, and their complications, are attended to, great errors must be committed in selecting a residence for such patients. But for fuller infor-

mation on this subject, I must refer the reader to the article on 'Bronchial Diseases.' " 91.

Dr. C. observes that, in what is commonly called dyspeptic complaints, and the numerous train of hypochondriacal and nervous symptoms which often originate in such a source, Nice is beneficial.

"But, here, again, it is necessary to distinguish the particular character of the affection. The cases of dyspepsia most benefited, are those accompanied with a torpid, relaxed state of the system, with little epigastric tenderness, or any of those symptoms which denote an inflamed or very irritable state of the mucous membrane of the stomach. Where the latter state is the cause of the dyspeptic symptoms, Nice will decidedly disagree; indeed, as I have already observed, a degree of this affection is almost endemic there." 92.

In all cases where there is great relaxation and torpor of the constitution, the climate of Nice is extremely useful. Also in a numerous class of patients, whose constitutions have been injured by a long residence in tropical countries, by mercury, &c. and in which a dry and rather exciting climate is indicated, NICE will prove favourable.

"In stating its general influence on the animal economy, I would say—that the climate of Nice is warm, exhilarating, and exciting, but upon the whole, irritating,—at least to highly sensitive constitutions. It is extremely favourable to the productions of the vegetable kingdom, some of which flourish here in a degree of luxuriance that is scarcely to be equalled in the other parts of the south of Europe." 93.

Invalids at Nice scarcely ever reside in town. Some good lodgings, over-looking the terrace, are to be had; but the largest and best houses are situated in the suburb called the CROIX DE MARBRE, and along the sea-beach, from the town to the ridge of the mountains bounding the plain on the west. Invalids should arrive at Nice about the middle of October, or sooner—and should not leave it before the beginning of May.

ITALY.

The poetical representation which Virgil drew of the climate, soil, and skies, of Italy, has, one would suppose, left a prepossession on every classical mind in favour of that interesting region of the earth. Much do we fear that the climate of Italy, though beautiful to the eye and genial to the senses, is not the paradise which it is thought to be.

The observations of Dr. Clark are limited to that tract which is situated between the northern shores of the Mediterranean, and the southern base of the Apennines. The climate prevailing over all this region exhibits a great similarity of character, and differs, in several respects, from any of the climates already noticed. It is much warmer and less humid—"but subject to a greater range of temperature than that of the south-west of France." It is softer, less dry, and less harsh and irritating than that of Provence—suffering more from the heavy oppressive winds of the south—and less from the dry searching winds of the north.

The modifications of climate in Italy appear to result chiefly from the relative position of places in respect to sea and mountain. Genoa and Naples are in the vicinity of both, as the mountains there approach close to the Mediterranean. Pisa is only a few miles distant from Genoa, and close to the Tuscan hills. Florence is quite inland, and so embosomed in the Apennines as to have the character of its climate materially affected.

GENOA is hemmed in between a range of steep mountains and the sea, with little or no surrounding country adapted for exercise. It is therefore an unsuitable residence for invalids generally—there being but little in the character of the climate to recommend it. The Summer is hotter, and the winter is colder than at Nice.

FLORENCE.—This is one of the most agreeable residences in Italy—but it is far from being favourable for an invalid—especially for a pulmonary invalid.

"Its situation among the lower Apennines, by which it is almost encircled, and the summits of which are covered with snow during the winter, together with its full exposure to the current of the valley of the Arno, renders Florence subject to sudden transitions of temperature, and to cold piercing winds during the winter and spring. Fogs, too, are more common here than at most parts of southern Italy. The winter temperature is upon the whole low, while that of the summer is high. The mean annual temperature is only $1\frac{1}{2}^{\circ}$ below that of Rome; but this is owing to the great heat of summer at Florence; for the winter is only 4° warmer than that of London, and is nearly of the same temperature as the winter at Penzance. The difference between the mean temperature of the warmest and coldest months is 36° , which is one degree more than that of Provence. Nevertheless, although the daily, monthly, and annual range of temperature are very great, the climate is not more variable or unsteady from day to day than that of Rome, and is less so than that of Naples. The annual range of atmospheric pressure is greater than that of the neighbouring places. The annual fall of rain at Florence is 31.6 inches, but the number of days on which rain falls is only 103, being fewer than at Rome. In the winter the air is rather chilly, and loaded with moisture.

"I do not know any class of invalids for whom Florence offers an advisable residence. My own opinion, founded partly on observation, and partly on the reports of invalids, perfectly accords with that of Dr. Seymour of London, and Dr. Down of Southampton, whose more extensive opportunities of observation during a long residence and extensive practice at Florence, make their testimony of greater value. 'The winter,' says Dr. Down, 'is extremely severe and wet, and the spring changeable, consequently highly injurious in complaints of the chest. The inhabitants are very subject to diseases of the lungs; and the acute inflammation of this organ, known under the popular name of *Mal di petto*, carries off yearly in the winter and spring an amazing number of them, particularly of the poorer classes, whose houses are ill calculated to afford protection against the cold and rains of these seasons.*' Florence is one of the places in Italy which agrees least with children. Intestinal worms are particularly common there, and dysentery is prevalent in autumn. Pellagra, a disease almost peculiar to Lombardy, is endemic in some parts of the neighbouring vallies of the Apennines.

"Florence itself is not subject to any endemic disease; and to persons not likely to suffer from the vicissitudes of temperature, which have been noticed, and who can support the great heat of summer, it holds out many inducements as a residence during the whole year." 102.

PISA has long had the reputation of being one of the mildest and most favourable climates in Italy for consumptive patients. It is still much frequented by invalids from this country. The town is built on the banks of the Arno, about five miles from the sea. The surrounding country is flat, except towards the North, where it is somewhat sheltered by a range of hills, as also on the East by the lower Tuscan hills.

"Pisa is not so warm as Rome in winter, and is hotter in summer. In winter it is 7° warmer than London, and 3° warmer than Penzance. In spring it is 8° warmer than London, and about 7° warmer than Penzance. The range of temperature between day and night is very considerable. According to Professor Piazzini, the fall of rain annually is

* "Observations on the Nature and Treatment of Fevers and Bowel Complaints, &c. in Greece, by J. Somers Down, M. D."

very great, being 45.66 inches, which is nearly as much as falls in Cornwall. The climate of Pisa is genial, but rather heavy and damp. It is softer than that of Nice, but not so warm; less soft, but less heavy and depressing than that of Rome. For invalids who are almost confined to the house, or whose power of taking exercise is much limited, Pisa offers advantages over either Rome or Nice: The Lung' Arno affords a warm site for their residence, as well as a sheltered terrace for their walks. But they must be careful to confine themselves to it. They should not venture into the cross streets before April." 103.

NAPLES.—This beautiful city resembles Nice more than any other place, as far as its character of climate is concerned.

The Autumn and Winter are generally mild; but the Spring is subject to cold, sharp, irritating winds, rendered more hurtful to invalids by the heat of a powerful sun. The climate of Naples is much more changeable than that of Nice—and, if somewhat softer in the Winter, is more damp and wet. The sirocco is severely felt at Naples, and but slightly at Nice.

"The mean annual temperature is higher than that of Rome, Pisa, or Nice; but the annual range of mean temperature is very considerable—being 30°; whilst that of Nice is but 28°; and that of Rome only 26°. The distribution of temperature in the different months is more unequal than at Nice or Rome. The daily range of temperature is also very great, being 2° more than at Rome. The temperature likewise varies very much from day to day, as will appear from the following statement:—The mean variation of successive days at Naples is 3°·36; at Rome it is 2°·80; at Leghorn 2°·44; at Nice 2°·33. The annual range of atmospheric pressure is very small,—somewhat less than at Rome, and very considerably less than in the south-east of France. Rain falls less frequently at Naples than at Rome." 105.

Catarrhal affections are the most common popular diseases at Naples. Consumption is not very frequent or rapid in its course. Autumn is the most fatal season for the consumptive in this place. Rheumatism is very frequent, as are also cutaneous complaints and ophthalmia.

"Of Naples as a residence for invalids it is unnecessary to say much. Consumptive patients should certainly not be sent there. The circumstances which have been pointed out in its climate, sufficiently mark it as a very unsuitable residence for this class of persons; and to the list of its defects must be added that of its topographical position, which affords no proper places for exercise, without such exposure as would prove highly injurious to delicate invalids. For chronic rheumatism it is, as compared with Nice and Rome, certainly inferior. Naples is however well suited as a winter residence for those who are labouring under general debility and derangement of the constitution without any marked local disease. The beauty of its situation, the brilliancy of its skies, and the interest excited by the surrounding scenery, render it a very desirable and very delightful winter residence, for those who rather require mental amusement and recreation for the restoration of their general health, than medical treatment for any particular disease." 107.

ROME.—The climate of the 'everlasting city' is mild and soft, but rather relaxing and oppressive. Its mean annual temperature is ten degrees higher than that of London, eight higher than that of Penzance, &c. In range of temperature Rome has the advantage of Naples, Pisa, and Provence—but not of Nice. Its diurnal range is nearly double that of London, Gosport, Penzance, and Madeira. In steadiness of temperature, from day to day, (in which our own country, with the exception of Penzance, is so deficient,) Rome follows Madeira, Nice, Pisa, Leghorn—but precedes Naples and Pau. With regard to humidity, Rome, though a soft, cannot be considered a damp climate. Compared with Provence and Nice, we find that one-third more rain falls at Rome, and on a greater number of days. It is, however, considerably drier than Pisa—and very much drier than the south-west of France.

"At Penzance there falls about one-third more rain than at Rome, and the number of rainy days is also about one-third greater. This circumstance, together with a greater evaporation going on at Rome, owing to its higher temperature must make a considerable difference in the hygrometrical state of the atmosphere, at the two places. Rome is not so dry as Madeira; as there falls one-sixth more rain at the former place, and the proportion of wet days is as 117 to 73. From these comparisons, it would appear that the climate of Rome, in regard to its physical qualities, is altogether the best of any in Italy. One peculiarity of it, deserving notice, is the stillness of its atmosphere; high winds being comparatively of rare occurrence. And this quality of calmness is valuable in a winter climate for pulmonary diseases; more especially for diseases of the larynx, trachea, and bronchia. It is also of great importance to invalids generally, as it enables them to take exercise in the open air at a much lower temperature, than they could otherwise do. To patients labouring under bronchial irritation, wind is peculiarly hurtful. When wind does occur at Rome, during the winter and spring, it is generally from the north, (tramontana,) at least when it continues for any considerable time. From this quarter there are occasional storms of cold wind; but these are of short duration, being limited, with surprising regularity, to three days. The Tramontana is a dry, keen, and irritating wind, resembling in its effects the cold sharp winds of Provence; and is equally to be guarded against by invalids; who should not stir out of the house while it blows with much force. The effects of this wind are accurately described by Celsus:—'*Aquilo tussim movet, fauces exasperat, ventrem adstringit, urinam supprimit, horrores excitat item dolorem lateris et pectoris. Sanum tamen corpus spissat et mobilius atque expeditum reddit.*' The southerly winds during the winter and spring do not produce much inconvenience to invalids at Rome. Even the relaxing and enervating effects of the *Sirocco* are not much felt, except by the more sensitive, and plethoric among the healthy, and by them only after it has continued to blow for a few days. Debilitated invalids, on the other hand, who suffer from great irritability, and a great degree of morbid sensibility of body, commonly feel the winter *sirocco* pleasant. In its effects on the body, this wind is directly opposed to the Tramontana. '*Auster aures hebetat, sensus tardat capitis dolorem movet, alvum solvit, totum corpus efficit hebes, humidum, languidum.*' Notwithstanding the character given of this wind by Celsus, it is the favourite of the modern Romans; and during the prevalence of the winter *sirocco* they feel the full enjoyment of health. In the months of March and April, winds are more frequent at Rome; they set in generally in the forenoon and continue till sunset, when they generally subside, leaving the nights calm and serene; and with a cloudless brilliancy which, at this season, is not met with in Italy. The effects of these keen spring winds, combined with that of a plethoric constitution, are severely felt by the sensitive invalid; though, as far as I could observe or hear, the testimony of others, these effects are considerably less in degree than those resulting from the same causes, during this season, at Nice and perhaps even at Pisa." 111.

We must pass over the malarious and other diseases prevalent at Rome, (because we shall notice them separately) in order to advert to some other points connected with climate as affecting invalids.

SUMMER RESIDENCE.

This is a matter of great importance to those who resort to Italy or other southern situations for the winter. To those who have wintered in Italy, two plans present themselves for Summer—either to re-cross the Alps, or to select the most favourable spot on the Italian side. By the first, the invalid will escape the oppressive heat of the Italian Summer—by the latter he will avoid the inconvenience and expense of a long journey. Dr. C. advises consumptive invalids generally to quit Italy—among consumptive invalids he includes all those who are threatened with phthisis. The heat of Italy will disagree in proportion to the advanced period of the disease. There may be a few exceptions, among those of torpid constitutions, with little nervous excitability, and defective cutaneous secretions. These may more safely remain beyond the Alps. The spots selected for this

purpose are usually, Naples and its vicinity, Sienna, and the Baths of Lucca. These are most eligible summer residences south of the Appenines. We can only notice the

BATHS OF LUCCA.

This agreeable little watering place is situated among the Appenines behind Lucca, and is much frequented during the Summer, on account of the coolness of the air and the medicinal powers of its waters. The mean temperature of the Summer here is about six degrees higher than the Summer in London. In the middle of the day, however, the heat is very great—the evenings and nights being cool and pleasant.

SWITZERLAND.

This interesting country presents many conveniences for the invalid; but our author cautions the phthisical patient against the sudden and great vicissitudes experienced among the Alps. Those, however, who are only threatened with consumption may pass the summer in Switzerland, provided common caution is taken against aerial vicissitudes. They should avoid, he properly observes, those excursions which require great exertions—cause much fatigue—and expose to currents of cold air when the body is heated.

“It will not, I hope, be supposed from any thing now stated, that I wish to throw obstacles in the way of young persons threatened with consumption taking exercise in the open air. This is so far from being my intention, that I think such persons can hardly be too much in the open air. All I wish to inculcate is, that they should be careful not to convert the best of all preventives into a source of evil. For this class of invalids, horse exercise is of all others the most favourable. I am convinced from experience that frequent and gentle motion through a mild atmosphere is one of the most soothing and invigorating measures which we possess, for allaying an irritated and congested state of the mucous membranes of the lungs and improving the general health.” 146.

Of the different parts of Switzerland, Dr. C. prefers the neighbourhood of Geneva. Vevey is hot in July and August—and the higher situations about Lausanne are exposed to the cutting Bise wind.

We must close the climate of Switzerland, and we may say of Europe, with the following short extract respecting the—

“CURE DE RAISINS.”

“The subjects of pulmonary affections, who have spent the summer in Switzerland, will do well to try the ‘*Cure de Raisins*.’ Of the salutary effects of ripe grapes, taken in considerable quantity for some time, there can be no question. In irritation of the mucous membrane of the lungs and digestive organs, and in congestive states of the abdominal viscera, with a disposition to hæmorrhoids, ripe grapes taken, for some weeks, in the quantity of several pounds a day, with a light diet, and abstinence from wine, and every thing exciting, will often prove very beneficial.” 149.

The first part of the work before us closes with some account of the climate of Madeira, taken chiefly from the writings of Drs. Heineken and Renton, with which we have long ago made our readers acquainted. The second part of the volume, on Diseases of the Chest and Abdomen, will furnish another article in our next number.

It will be evident to our readers, even from the extracts which we have given, that Dr. Clark deserves great praise for the pains, which he has taken in collecting climatorial facts and observations on the various places resorted to by invalids for health. Dr. C.’s writings are characterized more by judgment than by genius—by patient research and careful observation than by originality of thought, and splendour of talent. His language, as our readers must have observed, is as pure as the virgin snow on the summit of Monte

Rosa—and almost as cold! Dr. Clark is a philosopher of the first water. He can tread on the ashes of the Cæsars, the senators and the poets of Rome, with as much *sang froid* as on the Macademised pebbles in Hanover Square! The sight or the recollections of the Tarpeian rock, the chaffing Tiber, the peaceful Tusculum, the tomb of Virgil, or the fiery floods of Vesuvius, never appear to excite an emotion in his mind perturbative of the calm tenor of investigation in which he is engaged:—at all events no emotion is suffered to clothe itself in the garb of language! So again, our most philosophic author can traverse the horrid steep of the Grinsel, the terrific precipices of St. Gothard, or the yawning crevasses of the Glaciers, in quest of health, or in meditation on climate, with as much composure of mind as he would pace the trottoir of Oxford Street, or ascend the stairs of a patient's bed-chamber. Do we upbraid him with this imperturbable philosophy—

We think the ROMANS call it Stoicism?

Far from it! We admire that "singleness of heart," as well as of imagination, which can remain unimpressed and unimpassioned by every surrounding scene or circumstance, save that which forms the immediate subject of inquiry—the useful object of pursuit!

Dr. Clark's work must form an indispensable companion to every invalid who seeks restoration of health or prolongation of life beneath a milder sky than that which lowers over his native land. It will form a very useful book of reference for the medical practitioners of this country, few of whom fail to be consulted as to the influence of change of climate over various diseases. But as there is a large class of our brethren who will not, or cannot purchase or peruse new publications, we have taken considerable pains in placing within their reach a great mass of useful climatorial information, British and foreign, in this article. In this part our labour has, of course, been purely analytical. In the succeeding article, on the nature and treatment of various important diseases, we may take the opportunity of offering some comments on certain points of doctrine and practice laid down in the work of the amiable and intelligent author before us. In the mean time we have no hesitation in saying that this volume on Climate has added considerably to the well-earned reputation which Dr. Clark had previously acquired by his private practice and public writings.

XIV.

TRAVELS IN TURKEY, EGYPT, NUBIA, AND PALESTINE, IN 1824-5-6 AND 7. By *R. R. Madden*, Member of the Royal College of Surgeons. Two vols. 8vo. June, 1829.

THERE is no profession, or even trade, so easily carried from country to country, and at the same time so marketable, as *PHYSIC*. The lawyer requires a cart-load of statutes and precedents—and after all they would be useless, the moment he leaves his native land. The divine indeed may carry a good stock of theology in his head, yet he finds it a very unsaleable commodity, except among savages. But, as men die in every country, and generally fall ill before they die, so the doctor is every where sure of employment—even among the rankest fatalists, or professors of Islamism. The principles of our *science* are of course, carried in our heads:—and the instruments of our *art*—the *material* with which we work, may often be enfolded in our turbans, when in Turkish costume. A sharp lancet—an ounce or two of calomel—a few packets of James' powder—and some sulphate of quinine, will generally prove the essential articles. Most of the auxiliaries in the *methodus medendi* may be found indigenous in the countries through which we travel. This being the case, we think we may, without prejudice or partiality, affirm that a medical man, *ceteris paribus*, is the best calculated for travelling through foreign realms, especially through those where science and civilization are still in the rear. The medical character is far more sacred than the clerical in such countries. *Physic* interferes not with men's moral, political, or religious opinions. It removes, or professes to remove bodily ailments,

leaving the patient to his own doctrines and inclinations in all other respects. It was well observed by the Earl of Blessington, to the author of these travels, previous to his embarkation at Naples, that—"the medical profession afforded the best passport to a traveller in the East; and gave him access to the habitations, and even to the HAREMS of a people, whose prejudices debarred other Europeans from that intercourse with them, which is essential to a knowledge of their modes and customs." The author soon found the truth of these observations; but, as Herodotus was restrained by religious awe, from disclosing the secrets of the sanctuary, when treating of the worship of the Egyptians, so our judicious traveller allows himself only to describe, in the *penetrals* of the harem, what is fit to reach the ear—perhaps a little less than what met the eye.

Mr. Madden appears to possess, independent of his professional character, many essential qualifications of a traveller. These are, youth, strong physical constitution, zeal almost romantic, a temper peculiarly placid, (which, by the way, contributed much to the success of his enterprizes, and, in many instances, saved his life,)—facility of acquiring languages, good general education, great readiness and even happiness in clothing his ideas in easy, not to say elegant, dress. We are exceedingly glad that he either possessed not, or exercised not, a mania for exploring—

"Antiquities of nations now no more."

Instead of employing his time in measuring the altitudes and dimensions of every old pillar, temple, or pyramid, which fell in his way, together with all this kind of research, Mr. Madden travelled with the eye of a painter, and the mind of a philosopher—drawing accurate portraits of men and things, as they are—and reflecting, in his leisure moments, on what he had seen and described. The result has been one of the most amusing and instructive books of travels which we have ever perused. Were this a general, not a medical review, we should proceed to prove the truth of what we have advanced; but the nature of this Journal limits us to the notice only of some of the medical remarks and facts contained in the volumes before us. Considering that the work is destined for general readers, the medical portions of it cannot be subjected to rigid professional criticism, since it is obvious that the author could not put them in a shape or condition calculated for exclusive medical perusal. Nevertheless, they will be found by no means undeserving of notice.

Practice of Physic in Constantinople. There are about 50 medical practitioners in the renowned city of Constantine, principally Franks from Italy and Malta—a few Ionian Greeks, and Arminians. There are two regularly educated English physicians, highly respected by the disciples of Cross and Crescent. The following passage may appear very droll—but it is not so very different from the customs of cities farther North than Constantinople, as some may imagine.

"Every *medico* has his allotted quarter; he beats this ground daily in pursuit of patients, and visits all the coffee-houses in the district with a Greek *drogueman*, as interpreter, at his heels, whose occupation it is to scent out sickness, and to extol the doctor. They are ever to be found on the most public bench of the coffee-shop, smoking with profound gravity, and prying into the features of those around them, for a symptom of disease. I confess I had to descend to this degradation, to get practice, in order to become acquainted with the domestic customs of the people. The first day my *drogueman*, who had just left the service of a Roman doctor, and had been practising on his own account since his discharge (for all *droguemen* become doctors) took upon him to teach me my professional duty, which he made to consist, in never giving advice before I got my fee, in never asking questions of

the sick, and in never giving intelligible answers to the friends; I was to look for symptoms only in the pulse; I was to limit my *prognosis* to three words, '*In Shallah*,' or, '*Please the Lord*,' for doubtful cases; and '*Allakharrim*,' or, '*God is great*,' for desperate ones. I took my post in the coffee-shop, had my pipe and coffee, while my drogouman entered into conversation with the Turks about us. I soon heard him narrating a history of a miraculous cure which he had seen me perform some days before, on the body of a dying Effendi; how I had taken out his liver and put it in again, after scraping off the disease, and how the patient got well the next day, and gave me five purses. I was exceedingly annoyed; but the fellow seemed to mind my anger little, and even reproved 'my want of prudence' with a frown." 56.

The Turks swallowed this story, and Mr. Madden got two patients before he left the coffee-house—the fee from one being a cup of coffee—that of the other, 50 piastres. For the latter fee, which was a good one, he had to undertake the cure of an old and ugly woman, respecting whose case he could only get a touch of the pulse through a partially open door, for the whole of his information. Our author's practice, however, increased more rapidly than a doctor's practice usually does in more civilized capitals. His description of a great medical consultation on the case of a Turkish grandee, in which a priest took the lead and decided on the remedy, would be laughable in the extreme, were it not accompanied by the reflexion that the oil of wax, which was prescribed, contained, in all probability, a fatal dose of poison! The bulk of the patient's property was invested in a mosque. Mr. Madden having reason to suspect the probity of the priest, gave a hint to one of the attendants, that the grandee would die if he took the medicine; but it is probable the hint was not taken, as the grandee soon expired.

Mr. Madden's description of the opium-eaters is very spirited, as indeed are all his descriptions. We must make room for a short extract.

"I had heard so many contradictory reports of the sensations produced by this drug, that I resolved to know the truth, and, accordingly took my seat in the coffee-house, with half a dozen *Theriakis*. Their gestures were frightful; those who were completely under the influence of the opium talked incoherently; their features were flushed, their eyes had an unnatural brilliancy, and the general expression of their countenances was horribly wild. The effect is usually produced in two hours, and lasts four or five: the dose varies from three grains to a drachm. I saw one old man take four pills, of six grains each, in the course of two hours; I was told that he had been using opium for five and twenty years; but this is a very rare example of an opium-eater passing thirty years of age, if he commence the practice early. The debility, both moral and physical, attendant on its excitement, is terrible; the appetite is soon destroyed, every fibre in the body trembles, the nerves of the neck become affected, and the muscles get rigid; several of these I have seen, in this place, at various times, who had wry necks and contracted fingers; but still they cannot abandon the custom: they are miserable till the hour arrives for taking their daily dose; and when its delightful influence begins, they are all fire and animation. Some of them compose excellent verses, and others address the bystanders in the most eloquent discourses, imagining themselves to be emperors, and to have all the harems in the world at their command." 25.

Our inquisitive traveller tried the experiment on himself, and after taking four grains of opium in divided doses, began to think himself among the *honnais* of Paradise.

"My faculties appeared enlarged: every thing I looked at seemed increased in volume; I had no longer the same pleasure when I closed my eyes which I had when they were open; it appeared to me as if it was only external objects, which were acted on by the imagination, and magnified into images of pleasure: in short, it was the 'faint exquisite music of a dream' in a waking moment. I made my way home as fast as possible, dreading at every step, that I should commit some extravagance. In walking, I was hardly sensible of my feet touching the ground, it seemed as if I slid along

the street, impelled by some invisible agent, and that my blood was composed of some etherial fluid, which rendered my body lighter than air. I got to bed the moment I reached home. The most extraordinary visions of delight filled my brain all night. In the morning I rose, pale and dispirited; my head ached; my body was so debilitated that I was obliged to remain on the sofa all the day, dearly paying for my first essay at opium eating." 27.

Mr. Madden has given a short and animated description of the climate of Egypt. About the end of June, a heavy dew, called the *nocta*, begins to fall—the drooping plants again revive—the plague ceases—and a new disease is ushered in, *DYSENTERY*—which is of a very severe kind.

"I was seized with dysentery, in consequence of leaving my window open at night, the first week of the *Nocta*. An Italian physician, of the greatest eminence, who had failed as a merchant, was brought to me by my friends. I did not wish it, but they desired it, as my danger was imminent. The first thing he proposed, was to put ice to my abdomen, and ordered me to drink nothing but ice, 'to keep down the inflammation.' I thought this very strange; I objected to it, but he silenced me by the assurance that he had practised fifteen years in the country, and had found ice the only specific for dysentery. My mind was enfeebled by the disease, as well as my body; I suffered him to apply the ice; two hours after it, my symptoms were fearfully augmented; the pain was excruciating; and I thought my last tour on earth was nearly finished, and that my mortal pilgrimage was to end in Alexandria.

"I gave orders to admit the doctor no more; I took scruple doses of calomel, for three successive days, twice a day; the third day my mouth was affected, and from that moment every bad symptom ceased. Did this quondam merchant want to dispatch me, or was his remedy prescribed through mere ignorance? I dare not determine." 220.

Mr. Madden went to the East a decided disciple of Dr. Maclean—a staunch non-contagionist, as far as plague is concerned. At Constantinople he had the treatment of 46 cases. In his opinions there he was constantly perplexed—one day supposing the disease contagious, another day that it was infectious, and a third that it was neither. One thing only was constant and unequivocal—the fatal termination! "Almost every patient I treated or saw treated in Constantinople, was bled, purged, and vomited, to keep down the *inflammatory fever*—and every patient died exhausted."

"It was only in Candia I had reason to alter my opinion about Dr. M'Clean's doctrines. I was there thoroughly persuaded that plague is both *contagious and infectious, at one period epidemical, at another endemical*. In plain English, that the miasma may be communicated by the touch or by the breath; that at one period it is confined to a particular district, and at another is disseminated amongst the people. But if the plague have one form more decided than another, it is the endemic. I survived the folly of inhaling the infected atmosphere of plague-chambers, sitting on the bedside of pestilential people, as I was in the habit of doing at Constantinople, and feeling their ill-conditioned sores. In Candia, I say 'the fell serjeant' was too often at my elbow to let me sleep in the sweet security of non-contagion. The effluvia of pestilence has been too near my nostrils to continue to court approximation, for the sake of supporting a system." 264.

"The disease which plague most resembles is the gaol fever of this country, bad typhus fever; and in contradistinction to *typhus gravior*, or putrid fever, I have given plague the name of *typhus gravissimus*. The symptoms from the first are general debility, congestion about the heart, not depending on inflammation, but on the putrescent state of the circulation. It differs little from putrid typhus, except in its duration and eruptions. In every stage of plague, nature appears to lie prostrate under the influence of the poisonous miasma; and when the patient sinks at last, it is from the want of force in the constitution to drive out the eruptions on the surface." 265.

We shall reserve the article on *PLAGUE*, however, for our next number, when we shall present our readers with several other medical morceaus from these highly interesting volumes.

Periscope ;

OR,

CIRCUMSPECTIVE REVIEW.

" Ore trahit quodcunque potest, atque addit acervo."

I.

CURIOUS CASES OF DISLOCATION OF THE PATELLA OUTWARDS.

Sir Astley Cooper, in his Lectures on Surgery, remarks that, of all the dislocations of the patella, that upon the outer condyle of the femur is the most common.

Persons who have naturally an inclination of the knee inwards are most liable to this injury, and it is usually produced by a fall at the time that the knee is turned inwards and the foot outwards, so that the action of the muscles in endeavouring to prevent the fall, draw the patella over the external condyle of the thigh bone." Sir Astley further remarks, that unless the ligament has been relaxed from previous disease, *it will be torn* in this dislocation, and thus describes the manner in which the reduction may be effected.

"Place the patient in the recumbent posture, and let the leg be raised, by lifting it at the heel, so that the extensor muscles of the thigh may be relaxed as much as possible; then press down firmly the edge of the patella, furthest from the articulation, by which the opposite edge will be raised over the condyle, when the action of the muscles will quickly restore the bone to its natural situation. The following plan was adopted by Mr. George Young, in a case of the external dislocation, which he could not succeed in reducing by other means. He placed the ankle of the limb upon his shoulder, which gave him considerable power in extending the knee-joint, when grasping the patella with the fingers of his right hand, he pressed the outer edge of the bone with the ball of his left thumb, and thus forced it into its place."

We cannot entirely agree with Sir Astley

in thinking, that unless the ligamentum patellæ has been previously relaxed by disease, it must necessarily be torn, because we have witnessed more than one instance of luxation of the bone where the ligament was certainly entire, though the accident occurred in healthy individuals. We were led to transfer to our pages these remarks of the worthy and able Baronet, because they are borne out by the experience of most surgeons, and will serve to contrast the more strongly with the features of two rather extraordinary cases, one of which occurred in this metropolis, the other at Berlin, and that under circumstances singularly alike.

In number 50, of our esteemed contemporary, the Medical Gazette, will be found a communication from Mr. Mayo, respecting a case which occurred to himself and Mr. Broughton, the very intelligent surgeon of the 2nd regt. of Life-Guards. A private of the 2d Life-Guards, a stout, athletic young man, was struck sharply on the right knee by the knee of another soldier, as, in the exercises, two opposite lines rode through each other. They were riding at a walk, but the soldier on the right of the patient, had spurred his horse, so that it moved forward briskly. By this accident the patella was dislocated outwards, and rested with its inner edge upon the outer surface of the external condyle, the fore part of the patella facing obliquely forwards and inwards. As the patient lay with the knee extended he experienced no pain, there was no tension of the quadriceps extensor cruris; the patella admitted of a slight degree of motion forward or backward, turning upon its inner edge which seemed caught behind the prominent margin of the articular surface of the condyle.

We tried the following methods to reduce the dislocation. 1. *The knee remaining extended*, we pressed the outer edge of the patella downwards, forcing the bone at the same time strongly inwards. 2. Force was applied in the same manner, *the joint being rather more than half bent*. 3. We used the same sort of pressure, *beginning it while the knee was bent, and continuing it as forcibly as possible at the moment that the joint was brought to the extended position*. Bending the knee to the extent described we found gave the patient great pain, and caused the patella to face, not obliquely, but directly forwards.

"These attempts proved unavailing, and we left the patient for a time. In the afternoon we met at the Anatomical Theatre, in Great Windmill-Street, and examined the nature of the dislocation in a dissected limb, when we found, that, *upon bending the knee to the utmost*, the condyle was almost wholly drawn away from the patella. And we thought it reasonable to expect, that if the joint in our patient should be found to admit of perfect flexion, the patella would in that case, as we had seen it in the dissected limb, become disengaged from the condyle, and the dislocation be spontaneously reduced by the action of the quadriceps extensor cruris.

"We returned to the Barrack Hospital, and our patient expressed his willingness to submit to the experiment which we proposed to try. He was laid upon the left side, and his right ankle was grasped by a comrade, who, when we bade him, suddenly carried the heel back to the hip, thus bending the knee to the utmost. This motion was hardly completed when the patella audibly returned into its socket."

The method employed, does much credit to the ingenuity of the gentlemen engaged as well as to their perseverance, but then if we were disposed to hint an objection, we should say that half an oz. of the liquor antimonii tartarizati might perchance have saved some pain and trouble to all the parties engaged. One would think that the sudden and violent flexion of the knee-

joint under such circumstances must be not unlikely to rupture the ligament of the patella or the patella itself, and we cannot but consider it a hazardous experiment. However, we would not be thought to cavil, and beg to compliment the surgical staff in all sincerity on the issue of their operations; finis consecrat opus.

The second case to which we have alluded, is detailed in Rust's Magazine,* by Dr. Wolff, physician to the Royal Corps of Cadets at Berlin.

A hussar of the guard, Daniel Steinbach, twenty years of age, and of powerful make, whilst quietly walking his horse, was thrown by a sudden plunge of the animal against his comrade on the left. The left knee was struck, and the pain produced in it was so severe that he could not keep his seat, and was obliged to be taken from his horse and carried forthwith to the barrack hospital hard by. On examining the limb after his arrival there was found a dislocation of the patella outwards nearly similar to that which occurred in Mr. Mayo's case; that is, the inner margin of bone was lodged in the groove between the condyles of the femur, whilst at the same time it was twisted half round, so that the anterior surface looked inwards towards the opposite limb, the posterior surface looked outwards, and the external border projected in front immediately beneath the skin. The common tendon of the quadriceps extensor cruris, and the ligamentum patellæ, were, of course, twisted inwards, in accordance with the position of the bone—the parts were not much swollen—the limb was firmly and almost immovably extended—and, unless attempts at flexion were made, the patient experienced but little pain.

The limb was raised, and the knee-joint extended to the utmost by means of cushions, so as to relax as much as possible the extensors of the thigh, whilst a fillet was placed at the same time in the middle of the latter by which the soft parts were drawn down. Dr.

* Magazin für die gessammte Heilkunde; 27e. vol. 3e. cahier, 1828.

Wolff, then standing on the outside of the limb, grasped the patella betwixt his fingers and thumbs, and endeavoured to raise and turn the bone, but without success. Attempts were then made by flexing the joint, but they caused the most excessive pain, produced no good effect, and were therefore given up. The most extraordinary reasoning was now adopted by the surgeon, and gave birth to an equally extraordinary operation, that of dividing the tendon of the quadriceps extensor above the patella, and the ligament below it! The ratiocination we shall not insert; the operation adopted we shall.

A longitudinal incision was made through the skin, commencing about an inch above the superior border of the rotula, and extending down to the spine of the tibia. The tendon was laid bare, and divided by gentle touches of the knife at the point of its attachment to the bone, the capsule appearing untouched. It was then attempted, but without success, to reduce the luxation, and accordingly the ligamentum patellæ was next divided! The most extraordinary part of the business, however, is this, that although the patella was thus cut off from the tendon above, and the ligament below, it continued as immoveable as ever! All further manipulations were now given up, the wound united by suture and bandage, eighteen ounces of blood abstracted from the arm, and forty leeches applied to the knee, which was afterwards covered with ice. The patient was also directed to take a solution of Glauber's salt and nitre. Little sleep was obtained in the night in consequence of lancinating pains in the knee, but they grew less severe towards morning; and next day, Dec. 23d, the patient only felt them when pressure was made on the condyles of the femur. The pulse, however, had become more frequent, and another bleeding to 12 oz. was practised. In the evening he had a shivering which lasted two hours, and was followed by fever, with disturbance about the head, and very quick small pulse. He passed an indifferent night, and next morning had much fever, with the pulse small, frequent, and irregular, dry

tongue, much cerebral disturbance, and prostration. No redness nor swelling were observed about the knee, but the patient complained of some pain in the line of the incision. The straps were removed, and the wound was found to have united up to its superior angle, which gave issue to a mixture of synovia and thin sanious matter. The dressings were reapplied, and the patient ordered a draught containing sulphuric acid. In the course of the day the patient improved, and on the 25th, was a great deal better, whilst the wound was found to have united throughout. There was no pain whatever in the joint, not even on pressure. He continued in this favourable state for the next few days, experiencing, however, much pain on motion of the limb, whilst the sinus at the upper end of the wound burst out afresh, and discharged some thick pus and synovia. From the 7th to the 22d of January, the patient complained of pain in the internal condyle of the femur, with redness, heat, and swelling of the part, hectic and progressive emaciation. Leeches were twice applied with mercurial inunctions, with relief to the pain; an opening was made with the nitrate of silver on the internal side of the joint, and the limb was placed on the apparatus of Santer, ("balancoire de Santer.") Pus flowed in considerable quantity from the wound, and one day, during some motions of the patient, a bleeding took place which was readily checked. An abscess now formed on the inside of the knee, which was opened, and furnished five or six ounces of pus. It was afterwards discovered that the bed of the abscess had its seat at the posterior part of the thigh, in the triangular space formed by the bifurcation of the linea aspera of the femur, and here the matter collected and maintained itself despite of every means adopted to prevent it. There was pain on moving the limb, but the form of the joint experienced little change. In March there supervened symptoms of chronic inflammation of the mucous membrane of the bowels, the hectic continued, the powers of the system were exhausted, anasarca and even ascites succeeded; and on the 18th of November, 1824, eleven months after the accident, the unfortunate patient died.

Sectio Cadaveris. The thoracic viscera were sound. The quantity of water in the

cavity of the peritoneum was considerable—the mucous membrane of the intestines presented the marks of former inflammation—the kidneys were pale, and their mammillæ changed into a substance like fungus hæmatodes.

A little thin pus was found in the knee-joint, the capsule of which was thickened and adherent to the surrounding cellular membrane. The cartilage over the front and inferior surface of the condyles of the femur, as well as that which lines the pit between them was destroyed, but traces of it still remained at their posterior part, as well as on the condyles of the femur. The exposed surfaces of the bones were rough, but not eroded to any great extent. The patella which was also in great measure deprived of its cartilage, was much smaller in size than its fellow, and ankylosed with the femur between its condyles, precisely in the manner in which it has previously been described as dislocated. There was also a slighter ankylosis between the internal condyle of the femur and the corresponding part of the tibia. The fistulous openings which existed on the anterior and internal parts of the knee led to a channel which extended beneath the vastus internus to behind the bone. In the latter situation was found a large cavity extending from the condyles of the femur up to its middle, following the course of the linea aspera, which had almost lost its periosteum, and was carious in several parts.

Dr. Wolff believes that, it was not the operation, but the mal-position in which the patella remained, that proved the cause of all the subsequent and fatal mischief. It is natural enough that the Doctor should hold this opinion, being himself a party concerned, but we must confess that we do not agree with him in toto. Dislocations, aye, and dislocations quite as severe as, if not severer than the one in question, are constantly occurring, and yet when the accident is not a compound one, how seldom do they produce any very bad consequences. Wounds of tendons are awkward matters at the best, but cutting across that of the quadriceps extensor, and the ligamentum patellæ to boot, with a wound into the knee-

joint, as all who consider the anatomy of the parts must see it is next to impossible to avoid, is really a very serious sort of proceeding. The most extraordinary part of the business is, the patella continuing fixed after its tendinous attachments above and below were divided. To us it is really quite incomprehensible! It is obvious from the perusal of these two interesting cases, that a species of luxation of the rotula may take place, which is not described, at all events not commonly described, and further, that the difficulty of reduction is astonishingly great. On these accounts we have been induced to collate the cases in question, the only ones, as far as our reading extends, of the kind, and hope they may prove instructive and useful to our readers.

II.

SOME OBSERVATIONS ON THE TREATMENT OF SMALL-POX. By ALEX. STEWART, A. B. T. D. Assist. Surg. 2d Dragoons.

We lay before our readers the following extract from a printed paper which we received by the post. We suppose the article is in the course of publication in the Dublin Hospital Reports. We pass no opinion on the practice which Mr. Stewart recommends as preventive of deformity from small-pox.

“Whilst the pustule is yet Lymphic, (I would almost say papular) and before much, or any ulceration and suppuration has taken place, to pass a needle through it, as near the base as possible, and having a small bit of dry lint* in the other hand to press the

* A separate bit for each pustule.

apex gently on the base, and there retain it about a minute or two and then destroy the lint, this is to be done to all separately, and individually, as they appear: The effect on each is various—in some, an almost immediate cohesion will take place between the apex and the base, and a small superficial scab will be the consequence, the ulcerative action merges into adhesion, the red basis gradually subsides, and when in a few days, this superficial scab falls off, the part is healed without pitting—in others, the little pustule will again fill: puncture and press it down, the apex and base may then unite by the first intention, or it may again require a third time the operation, but seldom have I in any case known it to require more. The constitutional treatment must of course be adapted to the circumstances of the case, as if this mechanical and local one had not been made use of. It may be objected that it is laborious going over each pustule, when a full crop has covered the surface, but we must rejoin, that we cannot have any thing without trouble—maternal solicitude will not find it irksome—at first the motion requisite will greatly disturb the child and distress the parent, and perhaps render her unwilling to pursue the task, but the evident relief so shortly produced will raise her hopes, and render the process pleasant. When confluence is apprehended, and two or more pustules are so close that their inflamed bases are united, puncture each separately as far as possible from each other at the same time, and press between them with lint, the contained lymph is absorbed from each as it is pressed out, the adhesion of the apex and base is separately produced, and confluence is prevented. The rationale of the above practice must be evident to every person who will reflect, that febrile actions producing inflammatory affections of the skin, will be necessarily increased in a compound ratio of the specific tendency of that inflammation, and the state of the system in which the disease has been produced; that if, as in Small Pox, the tendency is to run into suppurative and ulcerative inflammation, the general irritation consequent to such action must necessarily react considerably on the constitutional derangement, and augment the fever; the above method, then, by removing a cause, will also remove an effect, the primary being lessened, and the secondary fever either not occurring or with much mildness; in fact, the first intention is substituted for the second, and the disease

strangled in its birth. The local consequence of this to females is invaluable, as little if any pitting is to be found after the part is healed—I am not aware of this method being in practice; pustules, vesicles, and papulæ, have been broken down in all the stages of the disease,* but it would appear to me, more to obtain fluid for experiment, or to see the nature of the contained fluid, than for a curative purpose, no pressure being used, nor the above mode of practice proposed. The idea suggested itself to me, when in the country, on the 21st of November, 1827. A man, not belonging to the regiment, requested me to attend his son, a fine boy about three years old, then covered thickly with eruption; and Small Pox prevalent in the neighbourhood, being aware that puncturing after maturation is sometimes recommended with a view to prevent the absorption of pus, many considering such circumstances an additional and reacting cause of febrile excitement, and also considering that ulcerative inflammation was the principal cause of the after pitting on the surface. It appeared to me, that early puncturing, and bringing the parts together before maturation, and while under a comparatively simple inflammatory excitement, a new and healthy action might be produced, and the specific tendency to suppuration and its consequences destroyed—the event justified the opinion. Mr. John Hunter has demonstrated by dissection, that a slough exists in the cutis in Small Pox, answering to the size of the pock, and which he considers peculiar to that disease, and there are others who believe this slough to be the cause of pitting, and as being attendant on each pustule that goes through its course of suppuration and pitting—we must hence be led to infer, that if the inflammatory excitement producing this slough be early employed in producing adhesion, the formation of the slough, and consequently future suppuration and ulceration will be prevented. But Mr. Hunter seems to consider, that the formation of the slough was not so much the effect of intensity and degree as the peculiar kind of inflammation—

* An improper and often dangerous practice, if to any great extent.

in reply we must observe, that peculiarity of inflammation is a thing we know but little about, except from its tendency and effects, that if a healthy adhesive inflammation be produced where an unhealthy tendency to the production of certain known effects existed, then, the existence of that peculiarity of action became of little consequence, being so easily destroyed."

III.

HYPOCHONDRIASIS AS DEPENDENT ON CHRONIC INFLAMMATION OF THE STOMACH AND BOWELS. By M. DELORMEL, M. D.

The author of this paper, which is published in a recent number of the Archives, has laboured to prove that melancholia and hypochondriasis are but symptoms or phenomena of gastro-enteritis chronica. The difficulty of distinguishing between irritation and inflammation, and the frequent combination of these two states, give considerable colour, and an air of probability to M. Delormel's doctrine, which is opposed to that of some distinguished continental physicians, who refer hypochondriasis directly to the brain. Here again we are puzzled between primary and secondary affections. If the mental energies become impaired or deranged, it is natural to conclude that the material organ of mind is the seat of the disorder. But this disorder is very often an effect of another disorder seated at a considerable distance. In pregnancy and in some uterine diseases, vomiting occurs. It cannot be doubted that the vomiting is produced by

disorder of the stomach—but the disorder of the stomach is caused by disorder of the uterus. The same reasoning will apply to hypochondriasis. Irritation of the stomach will pervert the judgment and the imagination. The *immediate* cause of these perversions is, unquestionably, in the brain; but the primary cause may be in the stomach. And even when moral causes act on the sentient system, and thus disturb the intellectual functions, we do not often find the phenomena of hypochondriasis induced till the digestive apparatus has suffered, and has begun to react on the sensorial energies. It is probable then, that, in a practical point of view, our remedial measures will be most advantageously directed to the chylipoietic organs;—since it is through them that we shall be best able to influence the sensorial functions. The following case will furnish food for reflection.

In the month of April our author was called to Madame Chatelain, at the Chateau D'Armanvillers, who, according to the physician in attendance, was "melancholic, hypochondriacal, and insane." She made several attempts at suicide, and was carefully guarded. She had been bled, purged, and well dosed with antispasmodics; but to no purpose. Dr. Delormel examined for himself, and came to conclusions very different from those of the ordinary medical attendant. The lady was 37 years of age, of very nervo-sanguineous temperament—active in body, and most amiable in her dispositions. For more than two years she had complained of burning heat, at times, in her stomach and bowels—the digestion was painful—and constipation was habitual. The catamenia were irregular and scanty—emaciation progressive—symptoms of melancholia and hypochondriasis well marked. Madame C. now declined all her usual avocations, and kept constantly on her couch. She could not bear to see her husband or children, to whom she was much attached when in health. Her ruling passion was solitude—and the predominant idea was the convic-

tion of approaching death. The lips and tongue were red, with whitish fur on the middle of the latter—the chest sounded well, although she had had a cough for three months—the epigastrium and hypochondria were extremely tender on pressure—pulse small and hard—evening fever—disgust for every kind of food—considerable thirst—pupils very dilated—nose pinched in—eyes hollow. She had missed one period of menstruation. The reunion of all these symptoms left no doubt in our author's mind of the existence of chronic gastro-enteritis. The treatment need not be detailed. We shall only observe that, in the course of five days, 80 leeches were applied to the epigastric and hypochondriac regions—that warm hip-baths, and warm fomentations to the abdomen were employed—that the patient was kept at first on sugar and water, and gradually allowed barley-water and similar sops, previously to more substantial alimentation. In less than a month Madam Chatelain had lost her gloomy ideas and her fear of death—and these were succeeded by good spirits and rational ideas. In two months this interesting patient was able to take substantial nourishment, and was restored to perfect health.

We have no doubt that the gloominess of mind, in this case, was dependent on gastric affection; but we are inclined to believe that the starvation alone would have produced the desired effect, without such a number of leeches. We are by no means convinced that the disease was GASTRO-ENTERITE. A highly irritable state of the gastric and intestinal mucous membrane will produce all the phenomena which the above patient exhibited—and these phenomena will often be removed by great abstinence at first, and a very gradual return to substantial food afterwards.

IV.

LEAPING AGUE OF ANGUS-SHIRE.

Mr. Crichton has recorded a curious case of this kind in the last number of the

Edinburgh Journal, which is deserving of notice.

In January, 1818, the author was called to a brisk and lively young girl of 15, of whose history the following are the particulars. In the Summer of 1815, she had suffered from stomach complaints, and great sickness. In October, 1816, thieves broke into the house where she was asleep. She sprang out of bed—leaped out of a window, and roused the people of an adjoining house. This shock was followed by another, the death of a favourite sister.

“She became pensive and bewildered, was affected with excessive perspirations; and her strength rapidly declined. At one period during the Summer the catamenia made a slight appearance but never returned. Towards the close of the year 1817, she had frequent attacks of shaking, accompanied with foaming at the mouth, and followed by a state of coma, which, after continuing about an hour, gradually went off. At the commencement of the year 1818, when my attention was directed to her case, the distress had assumed the following appearances.

Every morning about ten o'clock she became drowsy and torpid; about eleven she began to arouse out of that state; by twelve she got out of bed, and went through the house collecting her trinkets, such as watches, rings, writing apparatus, and other articles she had secreted the preceding day in holes and other bye-places out of sight. These she brought with her into bed, and amused herself with them for some time, occasionally conversing with those in the room, but in such a language that no stranger, and hardly even those of the family, who were constantly beside her, could understand. This arose from her commencing the sentences with the last word, and very frequently pronouncing the words themselves with the last letter foremost. At times, when by no possibility she could make herself be understood by her parents or sisters, she became irritated, and would write down what she wished to convey; but her manner of writing was equally singular, beginning at the right edge of the paper and writing backwards to-

wards the left, the last words of the sentences first, and often the last letter of the word first, and this she performed with great rapidity, and seemingly without consideration. Her sight, likewise, was peculiarly affected, seeing objects only in particular directions, so that when she wished to view any thing she was necessitated to turn her head in another direction. About one o'clock she again got out of bed, and after carefully secreting her trinkets in various bye-places of the house, she commenced dancing the *Copenhagen jig*. Her excitations continuing to increase, she jumped upon the tables and chairs, sometimes running with great rapidity round and round the edge of a table, then springing up and squatting herself upon the top of the room door, swinging backwards and forwards without any hold. At this time she required to be very narrowly watched for fear of her springing out of the window, which she often manifested an earnest longing to do. Upon one occasion the outer door happening to be open, she made a sudden spring out, clearing the stair case at one bound. She was instantly followed and brought back without having sustained any injury. At first they were in the habit of attempting to keep her forcibly down in bed, fearing she might injure herself. But the strength of several people together was insufficient for that purpose, as she got out of their hold like an eel, springing to the other end of the room, so that it was thought most advisable to allow her to take her own way, only guarding the windows and door. About two o'clock, becoming quite exhausted, she got into bed, and, falling into a deep sleep, she awakened about five o'clock in her right mind, and without being in the smallest degree conscious of any thing that had taken place during the paroxysm. She continued so until about ten o'clock next morning, when the same, or nearly the same routine took place."

Various medicines were used, with little effect; but the disease gradually subsided, and a voyage to the Baltic completely restored the young lady to health.

The term *ague* is, we conceive, improper. The complaint had nothing of

ague about it, except the periodicity, which is not exclusively peculiar to intermittent. The disease was one of those indescribable forms of hysteria, which defy all systems of nosology, all doctrines of pathology—and too often all kinds of remedy, except time. We have, at this moment, under our care, two young ladies whose complaints are, we have no doubt, of this class—but such are the strange forms assumed by the pathological process in these two cases, that were we to describe them, we would not be believed. At an earlier period of our experience we should have set them down as *deceptions*; but we are convinced that these females are driven to their antics by an irresistible propensity—and cannot control their motions or actions. In one case, and that the most distressing and of longest standing, a remarkable amelioration has been produced by remedial agency; but the case we dare not detail, in consequence of the state of a portion of the medical press, which, by misrepresentation and circulation among non-professional readers will go far to check all confidential communications to the profession, lest injury should be sustained both by patient and practitioner! This is one of the many evils which have flowed, and will yet flow from the system of banishing all honourable principles from medical society. The mischief is coming home to the breast of every reflecting person in the profession.

V.

PROVINCIAL MEDICAL GAZETTE—MEASURE FOR MEASURE, BY THE WINCHESTER BUSHEL—MEDICAL POLITICS AT A COUNTRY FIRE-SIDE.

Another labourer in the medical vineyard has just appeared, and promises to be one of spirit. We have heard it prophesied that a provincial medical journal cannot succeed. We do not believe that a fortune, or even a livelihood is to be obtained by editorial la-

hours in that field—but we see no reason why provincial periodicals should not be productive of great benefit both to the country practitioners, and to the profession at large. They will be of essential service to the *former*, by establishing a system of literary and friendly correspondence between the members of neighbouring counties, and by calling forth a generous rivalry in the cultivation and publication of medical and surgical information, not only among themselves, but between them and metropolitan practitioners. That such journals should be beneficial to the whole republic of medicine, there is no need of argument. Facts are facts, whether observed and recorded in Worcester, Winchester, or London—and their value has no reference whatever to the name of the recorder, or of the spot of ground on which the record was made. Vaccination is coupled with Gloucester only as a matter of history—and not in the way of causation. Had Jenner made the discovery in London, his name would not have travelled over one foot of ground more than it has done—though he lived and died a country practitioner.—The truth is, that taking the *general run* of medical practitioners in provincial towns and in the metropolis, the balance of knowledge, science, and literature, would preponderate in favour of the former.—There might not be found so many *suns*, but there would be more *stars* of the first magnitude. These *suns* of the metropolis, from whom the *light* can be readily and quickly borrowed, whenever there is any *obscurity* in the case, are most unquestionably the cause of internal darkness in their own satellites. Medical practitioners in the country are obliged to lean more on their own resources, and consequently their energies are more called forth—their intellects are more exercised—their observations are more acute—and their judgment more correct. Under these impressions we have no fear in predicting that the medical periodical press may flourish, in the country as well as in London. Do we not see as great talent and as great circulation in provincial newspapers as in those of the metropolis? The *medical gazettes* of the country have greatly the advantage of the newspapers; because medical facts are imperishable, while the “*on bits*” of the day die at the rising of the next sun.

But to return to the PROVINCIAL MEDICAL GAZETTE. The following extract
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from the introduction will show that this periodical is not likely to be a “milk and water production, as far as medical politics are concerned. The medical and surgical science of the new journal will be amply analyzed in other parts of our work.

CHARACTER OF THE LANCET.

“With regard to its personal criticisms of public lecturers and practitioners, we admit that they are within the proper pale of animadversion: but in a science still so imperfect as Medicine, and an art yet capable of so much improvement, opinions ought to be analysed with all the caution and candour of philosophy, and practice approved or condemned with modesty and forbearance—facts being carefully ascertained, and fairly stated. Whether the LANCET have uniformly acted up to these rules, the Records of Justice have repeatedly shewn. The history of Medicine has handed nothing down to us so truly disgraceful, as was disclosed on the late trial of Cooper v. Wakely. The internal evidence of falsehood in the recorded libel—the kind of witnesses produced to verify it—their ignorance, conceit, want of charity, and, at least in one instance, perjury—the tuition and tampering with them before the trial—the apparent attempt of the Reporter of the libel to produce, *post mortem*, for the purpose of deception, that which was insinuated to have been perpetrated during life—the attempt of the defendant to influence the *feelings* of the jury, by producing the models, preparations and instruments of a harrowing operation, and by an artful, blinding, and inflammatory address—all these have been so ably commented on and exposed to the public

* “This person has, since the trial, been expelled from the Westminster and London Medical Societies; a sufficient proof of the opinion these bodies entertain regarding his conduct.”

by our contemporaries, that it would be superfluous to add any thing on our part. Suffice it to say, they have removed the film from the eyes of those, who were before blind to the principle which moves this great engine of discontent. And it is not its undiminished boasting, and stale attempts to identify the freedom of the press with the liberty of libelling—nor the secret assistance of precocious and unruly *homunculi*, who spurn at their indentures—nor that of the little ‘unknowns,’ who assembled at the Freemason’s Tavern to condole with the defendant, and resolve that a good dinner is a capital thing—nor their modest pence put down to build him, doubtless a monument of *brass*—nor anything, in short, but unequivocal contrition, and an instant forswearing of those proceedings by which he has so disgusted the profession, that will prevent it from being banished by acclamation, wherever charity, good sense, or the feelings of candour and honour exist.

“In summing up our opinion of this ‘leading journal,’ or, first of medical newspapers, we beg to repeat, that we think it has, in many respects, been of great service to the profession ; and that we considered it to have been conducted with no little talent and activity. But, while we may admire its boldness and cleverness, we must detest its want of moral principle—and admitting the good that it has done, we cannot shut our eyes to the fact, *that it has introduced into a previously untarnished literature, a system, which if persisted in and encouraged, would very soon destroy all charity and trust among the members of our profession—sap its respectability—and render it a reproach to belong to it.* Let it not be said, that we ought to overlook the faults of the Journal, in consideration of its usefulness—for many a wretch has suffered on the scaffold, who was by no means destitute of good qualities. We presume, it would somewhat disturb the gravity of the court, if a convicted felon were to plead that he should not ‘die according to law,’ because he had done the state some service in the course of his life !

Nay, our enmity or friendship to the LANCET ought not even, as we conceive, to depend on the comparative *quantum* of good and evil it has done. It is our duty as well as our interest, to obtain the greatest degree of good with the smallest proportion of evil possible : and, unless it can be shewn, that the good which this Journal does or has done, cannot be obtained without the great and multiform mischief it has wrought, let all good men, and all wise men deny it their support.—Has any one formed so mean an estimate of those engaged in the study and practice of medicine, as to doubt that talents and acquirements, of a far higher order than any the LANCET can boast, will be found ready to prosecute whatever has been good in its design and conduct, if properly supported ?—And who has so degrading an opinion of them, as to think that those talents cannot be found without a deficiency of the moral and nobler sentiments of our nature ? We trust, that none can think so,—and we call upon every one who thinks otherwise, to aid in stopping the pestilence which is fast corroding all that is vital and honourable in the constitution of the profession.” 8.

Severe as are the foregoing criticisms—and not more severe than just, we venture to remark that our provincial contemporary, as well as most others who have taken the trouble of publicly characterizing the LANCET, has failed to point out one striking defect, which would inevitably ruin any journal, however buoyed up by a temporary storm of the passions. It is the total want, the entire destitution of all practical knowledge of medicine and surgery in its pages, as evinced in the editorial department. We defy the most strenuous admirer of the LANCET to shew one single iota, in the various volumes of that journal, indicative of the slightest acquaintance with practical medicine in its editorial criticisms. Whatever influence, therefore, the work may have in medical politics, it sinks beneath contempt, the moment that medical science comes on the tapis. A

few years will determine whether men unconnected with medical practice, and consequently incapable of judging between what is right and what is wrong—what is useful and what is useless, or worse than useless, in the science of medicine and surgery, can be considered proper persons to assist the judgment and to direct the taste of their brethren.

In respect to the influence which the *abuse* of the LANCET has had, or can have, on the fortune or fate of the *abused*, we venture to say that a very false estimate has been formed by many who are not in a situation to judge of the facts. Of all the personages on whom the vials of its wrath have been emptied, from the first day of its publication up to the present time, the Editor of this Journal has been the most conspicuous object of incessant obloquy. If we except the dagger and the bowl, there is scarcely an engine of persecution, or a measure of malice which the heart of man (fallen and depraved as human nature is) ever devised or executed, that has not been uninterruptedly directed against Dr. Johnson, during the last five years. And what has been the final result? The profession is now pretty well aware of the *candour* of the LANCET. Yet Dr. Johnson has not the slightest objection to leave the *estimate of damage* which he has received, to the arithmetic even of that very journal itself.

The profession at large, indeed, has long learnt to despise the wild ravings of the Journal of defamation. Like the log of wood hurled down by Jupiter into the pond, the *splashings* did certainly alarm a considerable portion of the croaking tribe. They are now raising their heads above water, and even jumping on the back of their despised and harmless Log King.

The PROVINCIAL MEDICAL GAZETTE (a strange name for a quarterly journal) has our best wishes for its success. The tone of honourable and manly feeling which it breathes, argues well for the profession, and is indicative of the rising spirit of indignation which is now bursting forth through town and country, against the bold attempt

to brutalize the medical profession in these isles, and render it an object for the finger of scorn in every country where letters are known, or the lowest rudiments of civilization established!

VI.

PHLEBITIS AFTER VENESECTION.

An interesting case of this description has been related by Mr. Chinnock, a very intelligent surgeon of Brompton, in the March number of the Med. and Phys. Journal. The issue, as unfortunately it almost always is in acute phlebitis, was fatal.

The patient was a labouring man, of robust plethoric habit, who was bled at St. George's Hospital, in consequence of a fall, and two or three days afterwards, consulted Mr. Chinnock, with some slight febrile symptoms which assumed no appearance of severity till the evening of the second day from Mr. C.'s visit. It looked, and was treated like a case of common inflammatory fever, and Mr. Chinnock bled the patient freely from the left arm. Next day, on proceeding to repeat the venesection from the right (the one he had been bled in at the hospital, and of which he had not hitherto complained) the lancet wound was found to be inflamed, the arm and shoulder generally swollen as high as the axilla, and considerable stiffness and pain experienced on moving or meddling with the limb. Twenty leeches were applied to the part, the patient bled again from the other arm, and salines with antimonials, calomel and opium, and a brisk aperient next morning prescribed. On the 4th day he felt himself relieved, but the countenance was anxious—the pulse 120, sharp, and small—the coating of the tongue darker coloured—the tumefaction and sensibility in the neighbourhood of the arm-pit evidently increased. Leeches, poultice, tincture of hyosciamus and acetate of ammonia in camphor mixture, and the opiate at bed-time, were the means employed, but in the night he had two distinct rigors, and

on the 5th day was worse. The swelling on that day being greater about the axilla, the pain even agonizing, and the general characters such as to indicate the formation of matter in the axillary region, Mr. Chinnock made a free incision with a sharp-pointed bistoury, and let out a great quantity of healthy pus. Relief, and that very marked, ensued, but it proved to be fleeting and fallacious, for next day there was found to be additional excitement—acute shooting pains were felt running down the shoulder to the fore-arm—the limb was smaller, but a reddened inflammatory line marked the whole course of the cephalic vein, which was felt distinctly hard and corded, whilst pain was produced in it by pressure, and a little pus made to issue from the orifice—the spirits of the patient were sunk, and with difficulty he agreed to the application of eighteen leeches to the vein, poultice and fomentation, and salines with henbane and opiates. In the evening he again appeared somewhat better, but on the 7th day the typhoid symptoms were unequivocal, and the patient was at times incoherent. The discharge from the wound and from the vein was sanious and thin, the integuments in the axilla flabby and livid, the red line of inflammation of the vein had disappeared, a difficulty was felt in the right side of the chest in drawing in his breath, which could only be imperfectly done, in consequence, not of pain or cough, but a sense of choking. A slight tumefaction, with tenderness and increase of heat, were also perceived in the opposite axilla. From this time he rapidly sank, became delirious, and died in the evening of the 9th day of Mr. Chinnock's attendance upon him. Previous to his death the tumefaction in the left axilla increased, he would not submit to an incision, and the part, like opposite limb, assumed a disposition to gangrene.

Sectio Cadaveris. The orifice at the bend of the arm opened distinctly into the vein, which was pervious to air from a blow-pipe. The soft parts immediately around the vein were considerably thickened and required much care to be separated from the vessel. The median cephalic and cephalic were double their natural size, thickened in their coats, the external injected and more vascular than natural, and the vessels alto-

gether looking like an artery rather than a vein. The internal tunic was red and much thickened, and no blood was contained in the cavity of the vessel, which was partially filled with purulent matter in patches like clotted cream. These appearances were observed till within about an inch of the termination of the vein in the axillary, where they ceased; the median basilic and basilic shewed feeble traces of inflammatory action. About an inch *below* the wound the morbid appearances ceased, but dark-coloured semi-fluid matter was formed in the interstices of all the muscles in the front of the arm, whilst the fibres of those which bound the axilla were gangrenous, and neighbouring cellular membrane was sloughy, and injected with sanious matter.

In the left axilla was an ounce and a half of thin grumous fluid, and in the right cavity of the chest, Mr. C. was surprised to discover from four to six ounces of semi-purulent matter. The pleura on that side had contracted some trifling adhesions, but presented no further evidence of inflammation. The right lung was greatly engorged—the opposite side of the chest was healthy—the heart and pericardium sound—the brain and abdominal viscera not examined.

The above was an interesting and well marked case of phlebitis, terminating as the majority of such cases do, at any rate, of those which we have witnessed, by a disposition to purulent effusions either into the pleural cavity or elsewhere. Mr. Chinnock brings it forward as serving to confirm Mr. Arnott's views, but to this we shall merely refer for the present, as we purpose to defer expressing our opinions on the subject, till the paper of the gentleman in question comes properly under our cognizance.

VII.

ANEURISM OF THE BRACHIAL ARTERY
FROM WOUND DURING BLEEDING.

Some interesting and instructive cases of the above accident, for accident we suppose it may be generally called, have been contributed by Mr. Smith, senior surgeon to the Bristol Hospital, in the first number of the Provincial Medical Gazette. The paper in question has oddly enough been headed, a "Letter on Blood-letting," though with ordinary blood-letting it has very little indeed to do.

Case 1. About two years ago, Mr. Smith was summoned to a patient in great haste, in consequence of an apprentice having opened the brachial artery with a lancet, in mistake for the vein. When Mr. S. arrived, the patient had lost a large quantity of blood, though the hæmorrhage had been arrested by the tourniquet. Mr. Smith cleaned the orifice and arm, and accurately closed the former by placing over it a small button-like compress, secured by adhesive straps and well regulated pressure. The tourniquet was then slackened, and the man sent to bed. The bowels were opened, and in two or three days there being some febrile excitement, the patient was copiously bled, but the arm was left undisturbed for a fortnight, when the pressure was removed. No tumour had appeared, an adhesive strap was re-applied pretty tight, to serve as a support, and from that time to this Mr. Smith has heard nothing of the patient.

Case 2. On the 15th of April, our author was summoned to a stout healthy workman, whose right brachial artery had been opened instead of the vein. The hæmorrhage had been very profuse, but a tourniquet was applied, and before Mr. Smith's arrival (three hours and a half after the accident) it was checked. The instrument had been screwed so tight that the man was in excessive torture, and the arm extremely swollen and livid. This case was treated in a similar

manner with the former, and then the tourniquet gradually loosened when the circulation was restored, and the pain by degrees disappeared. The bandage was cautiously tightened from time to time, and on the 2d of May every thing was removed. No tumour existed, and the man was directed not to use the arm roughly, an adhesive strap being placed around it as a measure of precaution. Mr. Smith has since learned, that the man experiences no inconvenience in the part injured.

"I might relate other cases in my own practice or that of my friends, of the same kind, amply sufficient to shew that *well-regulated* pressure will generally succeed in preventing the formation of aneurism. Doubtless, occasionally it will fail, and we have had many cases of brachial aneurism sent to the infirmary from various quarters, in some of which very likely pressure had been properly applied."

The two cases above detailed were certainly more favourable cases for the employment of pressure than those where the artery was punctured through the vein. We can see no good reason why pressure, properly applied, should not prevent the egress of blood from, and effect the healing of a clean cut in a vessel so much under our command as the brachial. Reasoning, *à priori*, would naturally lead us to this conclusion, and the experience of surgeons, Mr. Smith's for instance, goes to establish its correctness. When, however, both vein and artery are wounded, pressure, however employed, will, beyond all doubt, be often unavailing in *preventing* the formation of one or other of the different species of aneurism which follow this particular injury, and if the aneurism be actually formed, it will very seldom suffice to *cure* it. Mr. Colles, we believe, of Dublin, succeeded in curing a circumscribed aneurism of the brachial artery after bleeding, but such cases are much too like angels' visits—few and far between. The following presented some unusual symptoms, and deserves to be recorded.

Case 3.—A school-master twenty-four years of age, of irritable temperament, re-

siding the other side of the Severn, had his brachial artery wounded in bleeding, when the operator, aware of what had happened, bound a large quantity of lint on the orifice. The blood forced its way to the cellular membrane, and shortly afterwards, when the external wound was healed, a pulsating tumour made its appearance, and in the course of six weeks had acquired the size of a hen's egg. He was now admitted into the Bristol Infirmary, and next day the operation was performed of tying the brachial artery above. One of Mr. Smith's colleagues happening to have a finger on the tumour at the time that the incision was made through the integuments, informed him that the pulsation had instantly ceased on that being done. It was gone too far from the wrist, although the pulsations in the other arm were strong, and the patient by no means in a state of syncope. The operation was continued and a ligature applied round what seemed to be the artery, but not secured, as no pulsation was presented by the vessel.

"For the purpose, of restoring the circulation, the arm was plunged into hot water, renewed from time to time for an hour; but our efforts were unsuccessful. The lips of the wound were now approximated a little with adhesive plaister, the ligature being left as before, and the man covered up warm, and placed on his bed by the fire of the consultation room, which opens into the operation theatre. All this occupied the space of time between one and half-past two. The man went to sleep, and was pretty comfortable, but the pulsation did not return till about seven o'clock, when it was pretty strong both in the tumour and at the wrist; and I had the satisfaction to find that a pull at the ligature checked it immediately and effectually. Assured thus that all was right, I made a knot, and tied the artery. The wound was then treated in the ordinary way, and my patient had a good night, and suffered but little.

"In nine days the ligature came away without a drop of blood, the wound was

rapidly closing, and I flattered myself that all was well. Shortly after, however, he became attacked with erysipelas, spreading from the affected arm over nearly the whole of the trunk of the body, which occasioned suppuration in the cellular membrane of the limb, and sphacelus of some portion of its integuments; and considerably undermined his general health. When he was getting out of this, on the thirtieth day from the operation, there was a sudden and immense flow of blood through the wound where the vessel had been tied, which, in all probability, would have proved fatal, but for the accidental presence of a pupil. It was now judged expedient to amputate the arm, which I did immediately, a colleague commanding the artery by pressure, as there was no room for the tourniquet. The poor fellow bore it with more fortitude than I had anticipated, and after the operation said, 'Well sir, now I hope I shall get well.' In this hope you will readily believe I heartily joined, and I had indeed the pleasure of seeing him daily recovering for a fortnight or more, when he was suddenly, and without any ascertainable cause, seized with convulsions, and, in half an hour, a period was put to his sufferings.

"Upon examining the limb, we discovered that the brachial artery had ulcerated at the spot where the ligature had been applied. The aneurismal tumour was reduced to the size of a filbert."

This is certainly a puzzling as well as an unfortunate case, and the facts are all that are required, for commentary would be little else than conjecture. Mr. Smith, in concluding his "letter," mentions the particulars of the case of a young woman who plunged a sharp knife into the palm of her hand. A surgeon failed to discover the bleeding orifice, but by pressing with his single finger in various directions, Mr. S. at last hit upon one spot which commanded the hæmorrhage. Pressure on the bleeding surface itself, by means of a firm ball of rolled lint, compresses, and roller, was employed, and with perfect ultimate success.

Before leaving the subject of wounds of the palm of the hand, we may just allude to a case which occurred to Mr. Palmer, a very intelligent young surgeon, of Suffolk Place, and which has been published by him in the London Medical Gazette.

Case. W. Hall, æt. 28, a respectable tradesman, punctured with the point of a sharp leather knife, the ulno-carpal artery in the palm of the hand, about an inch beyond the pisiform bone. The wound was small but bled profusely; it was bandaged up for the ten following days, by which time it had perfectly cicatrized, and he took no further notice of it, until a few days afterwards he observed a small pulsating tumour in the site of the cicatrix. On the 9th of June, when Mr. Palmer saw him, the tumour was as large as a small walnut, and had a strong pulsation, which appeared to be daily increasing, and was not stopped except by the simultaneous compression of the ulnar and radial arteries. On the 12th of June, after having placed a tourniquet upon the arm, Mr. P. made an incision, about two inches and a half in length over the centre of the tumour, and immediately secured the ulnar artery where it entered into it. The sac was then opened, but on slackening the tourniquet a strong jet of blood issued forth, and the point of a small probe not readily discovering the opposite orifice of the vessel, the latter was dissected for externally, found, and secured. Still, however, notwithstanding the branches of supply were thus tied above and below, a considerable hæmorrhage issued from the sac, and on loosening the tourniquet a second time, and finding it impossible to discover the bleeding vessel in the bottom of the wound, Mr. P. passed a double ligature beneath the sac, and tied its two ends above and below, including the sac between the knots. The hæmorrhage was by this means completely arrested—the wound was lightly dressed—the last ligature taken away on the 30th, and on the 7th of the following month the cicatrix was perfect.

We fully agree with Mr. Palmer in

thinking that the proceeding he adopted was infinitely preferable to tying the radial and ulnar arteries, because it struck at once at the root of the affection, was much more certain in its effects, and was one operation instead of two. It is quite a mistake to suppose that the ordinary operation for aneurism in the course of a large vessel is applicable to all the affections in the smaller ramifications, and so surgeons are beginning to find it.

VIII.

IMPERFECTION OF THE HEART—DISCOLORATION OF THE SKIN—DISORDER OF THE STOMACH—DEATH—DISSECTION.

In the 13th volume of the Medico Chirurgical Transactions, page 215—and in the 6th volume of this Journal, (April 1827,) page 343, will be found a curious case of disease of the heart, accompanied by a partial discoloration of the skin, by Dr. J. Johnson. A case somewhat analogous has recently occurred in Dr. Johnson's practice. In the first case, (the lady of an eminent barrister,) the right ventricle of the heart was exceedingly *extenuated in its parietes*, which were not more than the seventh of an inch in thickness. The *capacity* of the left ventricle, on the other hand, was so diminished, that it would not contain more than a couple of drachms of blood—its parietes being three quarters of an inch in thickness. The colour of the skin, in all parts exposed to the air, was as brown as that of a Mulatto, though the lady was very fair naturally. The pulse was so feeble, for many months previous to death, that it was scarcely perceptible at the wrist. The lady died exhausted, her great complaint being what she denominated "fits of heaving," quite different from vomiting. Her appetite was voracious—she had a sense of sinking at the pit of the stomach—and she was easily put out of breath on using any exertion. There was no other disease than that above described in the heart.

About four months ago, a lady presented herself to Dr. Johnson, the colour of whose skin bore such a striking resemblance to that of the late Mrs. A. that his attention was instantly arrested by the similitude. His curiosity was still more excited, when, on feeling the pulse, it had the same feeble silky beat as in Mrs. A.'s case. On further examination, there was found a considerable parallelism in other phenomena. Nausea and distress at the stomach were complained of as the principal grievance, and dyspnoea was occasioned by the slightest exertion. The young lady could scarcely walk the length of a street, without exhaustion and breathlessness. The catamenia were irregular—the secretions depraved—the appetite capricious—the tongue loaded. It appeared that moral depressions of a sombre cast had been operating for two or three years on this lady's health, and the present symptoms had been gradually coming on for two years. On investigation, the dark colour of the skin was not entirely confined, as in Mrs. A.'s case, to those parts of the body that were exposed to the air. The whole surface was darker than natural; but by no means of so deep a hue as the skin of the face, neck, and hands.

After some saline effervescing medicines had been given to tranquillize the stomach, and afterwards some alterative aperients to regulate the bowels, this lady took small doses of the sulphate of quinine, sometimes with soda—sometimes with infusion of roses and sulphuric acid. By these means her health improved greatly—the colour of the skin became less intense—the appetite increased—and she was able to walk two or three miles without fatigue. While thus improving, Miss C. went to a ball at Enfield, and danced. She was much worse afterwards, and came to town to consult Dr. J. He strenuously cautioned the young lady against a similar exertion in future; but, in despite of this advice, she went to another ball, two days afterwards, and danced six sets of quadrilles! She took to her bed immediately after this act of imprudence, and in less than three weeks she died. Mr. Hammond, of Lower Edmonton, attended the lady during this last illness, and Dr. J. saw her four or five times at her residence in the country.

There had been some slight symptoms of pulmonary inflammation after the ball, which readily subsided; but gastric irritability, constant sense of sinking—*langueur*—*lassitude*—*faintness* (amounting almost to syncope) continued till within two or three days of her death, when coma supervened. Dr. J. at various times, examined the chest by means of the stethoscope—and once very particularly in the presence of Mr. Hammond. The respiration was clear and distinct every where. The action of the heart was also perfectly audible and regular; but there was no impulsion. The pulse at the wrist, during the time she had been improving under the tonic plan, had become much more developed; but during the last illness it continued very weak, and the colour of the skin became darker than ever.

Connecting the case with that of Mrs. A. above-mentioned, Dr. J. expressed his opinion to Mr. Hammond, that the heart was the organ most in fault. Dr. J. could not attend at the dissection; but his friend Dr. Hodgkin examined the body with his usual accuracy and ability, and favoured Dr. J. with copious notes of the dissection. Only a few extracts from these notes will be necessary in this place.

"Externally," says Dr. H. "the body was remarkable for its dusky hue. It was not merely the face which was so affected, but the neck, and particularly the hands, were in the same state. It appeared to depend on the deposit of colouring matter in the *rete mucosum*, and bore a close resemblance to the skin of a person in whom there is a slight admixture of the Ethiopian race."

There was nothing particular in the brain or its membranes, excepting that the convolutions were almost as much flattened as where there is a collection of fluid in the ventricles. Scarcely any serum was found in these cavities. The brain was rather softer than natural. The lungs were sound, and the pleura free from marks of inflammation.

"The pericardium was remarkably

thin, transparent, and quite healthy. The heart was of *extremely small size*, and singularly *thin and flabby*. The right ventricle scarcely averaged the tenth of an inch in thickness—and the *left* a quarter of an inch. The valves were healthy, except some partial translucent thickening of the mitral valve. There was a fibrinous coagulum, of very remarkable firmness, running for a considerable distance into the larger vessels." There was nothing else particular to be found, except that the right renal capsule was enlarged to about the size of the lobulus spigelii of the liver. It was readily seen on raising the concave surface of that viscus, and Dr. Hodgkin thinks it "not altogether impossible that it might, at times, have occasioned some pressure on the biliary ducts."

Now, although the pathological conditions of the heart, in Mrs. A's case, and in the one just detailed, are very different, yet the physiological disorders of function were nearly the same. The want of capacity in the ventricle connected with the general circulation—and of power in the parietes of the right ventricle, in Mrs. A. produced the same defective circulation throughout the pulmonary and aortic system, as the extremely small, thin, and flabby heart did in Miss C.'s case. It will hardly be doubted,

that, in both cases, the fatal event was dependent on the defects in the central organ of the circulation. But how, and whether the foregoing imperfections in the heart, were connected with the remarkable discoloration of the skin, we will not venture to say. The two cases, agreeing so strongly in the extreme weakness of the pulse, the dark hue of the skin—the affection of the stomach—and the physiological imperfection of the heart, may afford some information, at least, as to prognosis, to others, when similar phenomena present themselves in practice. The remarkable amendment of health which took place in Miss C.'s case, under the use of tonics, is worthy of consideration. Had she not so imprudently exerted herself in the act of dancing, there is every reason to believe that life might have been preserved—at least for some years. When Mr. Hammond was called in, after the exertion above-mentioned, a great collapse and fainting fit occurred, from which the patient was, with difficulty, recovered. Is it not probable that the fibrinous concretion, or, what used to be called polypus, found in the heart and large vessels by Dr. Hodgkin, then took its origin? We think it very probable.

CLINICAL REVIEW.

IX.

WINCHESTER COUNTY HOSPITAL.*

[Mr. George Miller, hospital pupil, Reporter.]

Nothing can give us more unfeigned satisfaction than witnessing the publication of the many interesting cases which occur, as occur they constantly must, in our county hospitals and provincial infirmaries. Those who best know the medical officers attached to these institutions, also know that in point of information and talents, they are nothing

behind their metropolitan confrères, though hitherto, we must say that they have slumbered at their posts, and not displayed the zeal they should, in publicly promoting the cause of our noble science, and contributing their share to "that store of facts by which disputed points of doctrine may be decided, wavering opinions confirmed, and mistaken theories refuted." We trust that a happier era is approaching, nay, is even now begun, when disgraceful and gladiatorial conflicts amongst medical men, shall give way to an ardent co-operation in improving the profession, instead of debasing it. Dropping, however, these preliminary remarks, we come to notice some cases reported in a very creditable manner indeed, by Mr. George Miller, in our newly-born provincial contemporary. It would seem by the table

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Vol. XI. No. 21.

of medical and surgical patients received in the course of a quarter in the Winchester hospital, that the pupils must have very considerable opportunities of studying the practical part of their profession within its walls. From what we have seen of young men who have come to this town to complete their education, we should say, that the county hospitals were very excellent schools indeed.

With regard to the present report, we shall follow our usual plan of selecting particular cases, and freely appending what remarks occur to our minds upon each.

I. PARALYSIS OF THE UPPER EXTREMITIES.

A man, ætatis 67, was mowing in a field when suddenly he was seized with such a loss of power in his arms as compelled him to desist. He applied no remedy, but the feebleness continued, and five weeks after this attack, he entered the hospital. His health at this time was good, he had no cephalalgia, but like an intoxicated person he could not maintain the erect posture. The deltoid muscle of both sides, and especially the right, were quite wasted away, and the shoulder sunk as in dislocation.

"The depleting system, as cupping, blistering, &c., was first resorted to, without the least benefit, and this was altered to the diffusible stimulants; but the patient being desirous to return home, his friends removed him in a cart; and he had not left the hospital long, before he became so much worse that they judged it expedient to return with him. When he arrived, he was in a complete state of collapse, extremities cold, pulse scarcely perceptible, lips livid, and his breathing extremely laborious, but he was sensible. He rallied on the proper application of remedies; and became much better towards evening, but during the night he suffered a relapse, and expired the next morning."

On dissection, the vessels of the brain were found turgid with blood, and there was a varicose enlargement of the veins on the outer side of the plexus choroides. The frontal sinus was filled with unusually thick

pus, but no other appearance of disease was detected in the body, though the spinal marrow does not appear to have been examined.

It is pretty clear, we think, that nothing exists on the face of the dissection to account satisfactorily either for the paraplegia, or the final and fatal result. The ignorance, however, in which we are left respecting the state of the spinal marrow, puts a stop at once to any speculation on the proximate cause of the disease.

II. AMPUTATION FOR DISEASE OF THE KNEE-JOINT—DEATH—ABSCESS IN THE LUNG.

William Triggs, ætatis 49, a game-keeper, was admitted on the 24th of September, with disease of the right knee-joint, of three years' standing. He had had a severe attack of fever, after which he experienced a considerable degree of weakness in the joint, for the space of twelve months, when, without any obvious exciting cause, it began to enlarge and grew extremely painful. He continued, however, his usual avocations until about two months prior to his admission, when the disease was much exasperated by receiving a heavy blow on the inner condyle of the femur, which immediately occasioned a severe attack of inflammation of the knee, and swelling extending down the leg and foot. His general health had not suffered much, nor had he applied for advice, till a month or so prior to admission.

"On examination, the natural appearance of the joint was completely lost in the general tumefaction, the temperature of the part much increased, unaccompanied with redness. The slightest pressure occasions great deep-seated pain in the joint, reaching down to the foot. There is no motion at the knee, and the whole extremity appears cumbersome and heavy. The thigh above the knee is diminished in size, but the leg and foot enlarged. His general health is not so much affected as would be anticipated from the nature and extent of the disease. Pulse 60; bowels regular; countenance natural, though the tongue is whitish

and furred at the back part, and there is a degree of emaciation indicative of constitutional irritation. During the night the pain and increase of heat became greatly aggravated, which, with the violent twitchings of the limb, almost preclude the possibility of sleep."

We need not detail the items of the treatment employed, suffice it to say, that it had no effect in arresting the disease; on the contrary, the patient's symptoms, general and local, were aggravated so much on the 7th October, that it was thought proper to remove the limb, to which he readily assented. Amputation was accordingly performed above the knee, in the usual manner, seven arterial branches requiring to be tied. The patient lost very little blood, and suffered extremely little. He was removed to bed, and took 30 minims of laudanum in a glass of camphor mixture.

On examining the amputated limb, there was found on the posterior part of the joint, behind the capsular ligament, but entirely external to it, an abscess containing about six drachms of healthy pus. The "synovial gland" (qy. what is that?) was entirely destroyed, the cartilages more or less absorbed and disorganized, the bones, and especially the rotula, highly inflamed, the cellular substance of the leg and foot filled with serous fluid. From the post mortem appearances it is evident, as the history of the case would *a priori* lead one to infer, that the disease was essentially ulceration of the cartilages, and the inflammation of the bones a secondary lesion.

He went on tolerably well for the first three or four days, the pulse ranging from 90 to 100, the temperature of the skin being little increased, the bowels being freely opened by aperient powders, and only a little nausea being experienced, which was checked by the effervescent draught with a few drops of laudanum. The discharge from the stump, which exuded through the dressings in considerable quantity, was so fetid as to require the application of rags moistened with the chloride of lime. On the 11th, four days from the operation, the dressings were removed for the first time,

when the edges of the wound were found to be adherent, except at its extremities, through which much grumous blood had escaped. In the evening of the 12th, he was attacked with violent retchings, passed a restless night, and next day presented these symptoms: constant and violent retching, distention and pain of the abdomen increased on the slightest pressure, quick and feeble pulse, clean tongue, extremely anxious countenance, and great exhaustion. On dressing the stump again, the adhesions were found to be completely broken up, and a still greater quantity of grumous blood was discharged. Warm brandy and water was given immediately, and frequently repeated, and a draught of opium, carbonate of ammonia, tincture of bark, and camphor mixture, was ordered to be taken every four hours. The patient, however, did not rally, and although the stump itself assumed a very healthy appearance, he sank on the 26th.

"On dissection, the only sign of disease, either in thoracic or abdominal viscera, was a *small abscess* in the right lung, all the rest exhibiting the most perfect health."

We cannot but express our regret that the nature, that is, the anatomical features of the abscess in the lung, was not more minutely and definitely described. From the statement in our contemporary, no one could positively determine, whether the abscess was a common vomica from suppurating tubercles, a genuine phlegmonous abscess in the lung, or one of those purulent depôts, of which we hear and see so much, and know so very little. For our own parts, however, we are strongly inclined to believe that the "abscess" was one of the latter description, and this, not merely because there existed matter in the lung, but rather from the nature of the symptoms during life. The violent retchings, the quick and weak pulse, the anxious countenance, and extreme prostration of the nervous system, occurring a certain number of days after the performance of a capital operation, are very characteristic features of the formation of pus in the parenchyma of the lungs or liver. In these cases, however,

there are always rigors, as far as we have seen, which are not alluded to in the present instance, and the tongue, instead of continuing clean, becomes dry, with a deep brown fur in its centre and a morbidly red appearance at its sides and tip. On the whole, however, as we said before, we are strongly inclined to believe that the case was one of those purulent deposits, and again express our regret that the notes of the dissection should not have been given with greater minuteness. One word more before leaving the subject ; we would earnestly intreat our provincial surgeons to attend to this class of affections, to look for them carefully and closely, and when they shall have found them, as find them, and that too often, we know that they will, to bring them before their professional brethren. The surgeons of the Glasgow Infirmary are deserving of much commendation for the zeal and activity they have shewn of late in cultivating this branch of surgical pathology.

It now appeared that the pressure of the bandage having caused a most decided diminution of pain, he had increased the compression from time to time by tying a handkerchief tight around the thigh, the knot being placed directly over the centre of the aneurism. Three days previous to his admission, the pulsation of the tumour had totally ceased, and since that time he had experienced sensations in the limb, precisely similar to those which he had felt after the operation on the opposite. He also complained most severely of a burning heat immediately under the skin, as if from boiling water trickling down the foot and leg. The temperature of both feet was alike.

Under these circumstances, pressure was re-applied by Mr. Lyford, by means of a tourniquet and splint, and in the course of ten days, on removing the apparatus, all appearance of swelling had entirely vanished, and so had every vestige of the disease. The knee-joint was at this time capable of perfect flexion and extension, and the patient being able to walk without any support was discharged cured.

III. SPONTANEOUS CURE OF FEMORAL ANEURISM—ASSISTED BY PRESSURE.

A labourer, 43 years of age, had the right femoral artery tied with success by Mr. Lyford, at the hospital, for popliteal aneurism. In June last, nearly two years after the operation, he was occupied in mowing, when suddenly he felt something give way in the thigh, accompanied with violent pain, and succeeded by a throbbing at the part, which became so much aggravated at night as to rob him of his sleep. In the course of a very short time he observed a small tumour at the lower and internal part of the thigh, which gradually increased, till he made application at the hospital, at which time it was four or five inches in circumference, circumscribed, rather hard, but entirely reduced by pressure on the artery above. He could not at this time enter the house, and was directed to apply a flannel roller so as to occasion moderate pressure, and to keep himself perfectly quiet at home. On the 27th of September, he was made an in-patient, when the tumour was found to have greatly subsided, and had lost all pulsation.

Not the least curious part of this interesting case is the rapidity with which the *debris*, if so improper a term may be permitted, of the aneurism disappeared. Even where the common operation is successfully performed, it is mostly a considerable time before the consolidated tumour is depressed. In this case, however, it would seem from the *almost entire* subsidence of the tumour on pressing the artery above, that little coagulum existed in the sac, which would make, of course, a material difference in the length of time required for the completion of the absorptive process. The *mode* in which the spontaneous cure, if spontaneous we can strictly call it, took place, in the absence of dissection is obviously a matter of uncertainty, but still if we do not know what it *was*, we can tell what it *probably was not*. It was clearly not produced by sloughing of the sac, nor by the gradual deposition of lamellated coagulum filling up its cavity and that of the artery from which it sprung, nor yet, as occasionally happens, by the

filling up with coagulum of the sac alone. Is it probable that the sac, which was rather large, became itself the immediate mean of cure, being pressed by the bandage on the artery above, so as to obstruct the circulation through it? This position or overlapping of the sac, it is well known has more than once effected the spontaneous cure of the disease, and we see no reason why it should not, but several why it should have done so in the present instance.

The cases of Guattani prove that compression will succeed, in many cases of aneurism, and we cannot but think that surgeons might employ them oftener than they do. When the tumour is recent, seated in the course of an artery, like the femoral, not very large, emptied or nearly emptied by pressure, and free from inflammation, the case, in our humble opinion is a fair one for the trial of compression, especially if the patient be in the upper ranks of life, able and willing to submit to perfect repose, both of body and of mind. By compression, we do not mean sudden or violent measures, for the pain they produce is such as no human being can endure and ten times worse than any operation, but gradual and easy pressure of the tumour and the limb, with low living and repose. It is only in particular cases that such a proceeding is either required or desired, but we think that in some, it would answer, and at all events, would prove no bar to an after operation, if it failed.

IV. EXTENSIVE WOUND OF THE HEART —SURVIVAL OF THE PATIENT FOR AN HOUR AND A QUARTER.

A bricklayer's labourer, twenty five years of age, fell from a ladder on the top of a house down among some wooden railings, which pierced the upper part of the abdomen, and produced a wound about two inches and a half in extent, through which a vast quantity of the small intestines protruded. A surgeon, who was sent for, reduced the bowels, applied three sutures to the wound, and directed the patient to be taken to the Hospital. On his admission he was found in a very ex-

hausted state, having all the symptoms produced by a violent injury, or great internal hæmorrhage, and although he was wrapped in warm blankets, and had hot brandy and water every ten minutes, he died in rather more than an hour and a quarter after the fall.

On examination of the body, which took place six hours after death, the wound was seen to have extended through the diaphragm, immediately beneath the sternum, into both ventricles of the heart, and through the septum ventriculorum, leaving a large ragged opening, an inch in length, in their parietes. Through this laceration the blood had escaped into the chest, which contained more than two quarts of that fluid perfectly uncoagulated. The small intestines in many places were in a complete state of intus-susception, but otherwise the body was healthy.

"This case, in one point of view, is highly interesting, and of much practical importance, inasmuch as it clearly manifests, that a very considerable injury of the heart may be sustained without causing that immediate dissolution which is commonly supposed uniformly to arise from wounds of this most important and vital organ. We have on record numerous instances of rupture of this viscus from disease, occurring principally, if not entirely amongst persons at an advanced period of life. In ten patients, who lost their lives from this organic lesion, it was observed that eight died instantly; one at the expiration of about two hours; and another at the end of fourteen. The longest period which a person has been known to survive after a wound of the heart is forty-eight hours, exemplified in the case of a soldier, on duty at Haslar hospital, who had a bayonet plunged into the right auricle. On examination after death, it was found that a coagulum had formed, and completely filled up the wound! but in an effort to evacuate the bowels, a second hæmorrhage took place, and he was found dead, sitting on the night chair."

A case of calculus in the bladder is detailed which occurred in the person of a

short fat healthy looking man, and for which the operation of lithotomy was performed, and it would seem very well performed too, by Mr. W. Wickham.—The gorget was introduced and the bladder incised in the space of one minute, and the stone, which weighed thirteen drachms and a half, extracted at the end of three. In a child which we saw operated on by Mr. Keate at St. George's Hospital, the whole, almost incredible as it may appear, was completed in *forty seconds*; and in another case Mr. Brodie performed the operation in something more than a minute. We know that in children lithotomy is quite a different operation from lithotomy in adults; and further, we do not attach much importance, at the best, to surgery by the stop-watch. That operation is best done which is done with coolness, decision and skill. When the *citô* can be combined with the *tuté*, so much the better for patient and surgeon; but when it is not, Heaven help them both.

V. FOOD IN THE PHARYNX FOR A YEAR AND A HALF.

A young woman, after partaking of some boiled beef at a hasty meal, was suddenly seized with excessive difficulty of deglutition and dyspnoea with cough, but without expectoration. Next morning, in consequence of the horrible sense of suffocation with which she was constantly threatened, she applied to a medical gentleman who examined the throat, but could find no extraneous substance within it, and prescribed an emetic or two, without producing any relief. From this time up to her admission into the hospital, a period of a year and a half, she was forced to live entirely on fluids, by which her strength was materially impaired, and her frame emaciated greatly. After her admission, the finger was passed to the posterior part of the throat (the tongue being at the same time much depressed) into the pharynx, when a foreign body was felt at the right and inferior portion of that bag, resembling a morbid growth of the part.—After some little time it was dislodged, and fell into the upper portion of the œso-

phagus, from which it was pushed into the stomach by the œsophagus-bougie, when immediately the power of easy deglutition returned.

Some other cases are yet to be noticed, and to these we shall return at a future opportunity.

X.

HOTEL DIEU DE CAEN.*

ACUPUNCTURATION.

In nothing is fashion, omnipotent fashion, more conspicuous than in medicine. A little while ago the town rang with "acupuncture;" every body talked of it; every one was curing incurable diseases with it; but now not a syllable is said upon the subject, and acupuncture would seem to be quietly consigned to "Lethe's silent stream." In France, however, the advocates of the measure would seem to be as hot as ever, and cases are constantly recorded of the wonderful benefits and cures it has accomplished. In the *Archives Générales* for last October, two cases are reported from the practice of M. Trouve, where it *seemed* (for alas! in these matters we are frequently sadly taken in) to produce good effects. The first was that of a young woman labouring under many of those strange hysterical symptoms so commonly met with in practice, and that to a very distressing degree. A great variety of general and local means were put in practice with little or no effect, when M. le Médecin en chef resorted to the needles, and employed them assiduously for many days, as often as the slightest promonitory symptom of a hysterical paroxysm made its appearance. The patient soon left the hospital cured. The second patient was also a young woman, who had suffered for seven years from paralysis of the right lower limb following a fall upon the back, and obliging her to go constantly on crutches. Four applications of the needles sufficed to give

* *Archives Générales*, October, 1828

her perfect use of the long palsied limb, and shortly afterwards this patient also left the hospital.

We suppose the *modus operandi* of acupuncture, at least in cases of this description, is to be considered as similar to that of incantations, cauls, &c. for it is notorious that many a malady has yielded to the potent spell of some old beldame, which had long resisted the professional skill of the regular descendants of Hippocrates. Whatever the *mode* in which the needles act may be, if they *have* an action, and that a good one, they are worth a trial now and then in those nervous or hysterical disorders, on which scientific measures are completely thrown away. We have seen a most salutary salivation produced by *bread pills*, in a very hypochondriacal patient, who fancied he had syphilis, and that he *ought* to be put under the influence of mercury. The pills of course were said to be mercurial, and particular injunctions were given him to leave them off as soon as the mouth should be affected.

XI.

MADRAS GENERAL HOSPITAL.

ACUTE HEPATITIS. "MORBID MATTERS."

The following case, related by Mr. Annesley, in the first volume of his great work on Indian diseases, offers a specimen of the severe hepatic attacks to which Europeans are liable on first entering on a tropical life in India.

"*Case.* — Vaughan, *ætat.* 32, His Majesty's Royal Regiment; has only been in India two months; admitted into the General Hospital, Madras, this evening, 18th October, 1820. Says he was attacked three days ago with violent pain in his right side and shoulder; but he was either not in the way of obtaining assistance, or did not apply for it. He now complains of severe pain when he takes a full inspiration, or when the slightest pressure is made upon his side. Stools are scanty, griped, with some tenesmus; face

flushed; pulse hard and full, 88; skin dry, but not hot; tongue white and furred, rather moist; much thirst; no appetite; cannot lay on either side without excessive pain, and is obliged to lay on his back day and night. He has a short, teasing cough.—Twenty leeches were immediately applied down the spine and along the right hypochondriac region, and thirty-six ounces of blood were taken from a vein.

"*Ten o'Clock, p. m.* The first cup of blood which flowed from the vein was exceedingly thick and black; the second was cupped, and had the inflammatory buff coat, with a great deal of serum; the last few ounces were of a firm, compact, flat surface, with very little serum, and very little buff coat.—Calomel, *gr. xx.*; pulv. antim. *gr. iv.*; opii puri, *gr. ij.* h. s. s. Enema purgens. Mist. salin. febrif. every three hours.

"19th.—Has been copiously purged, and the stools are extremely offensive, feculent, and morbid; pain relieved, but still severe; pulse 84, soft and regular; skin more natural; tongue less excited.—Apply twenty leeches to the region of the liver. Pulv. purg. 3j. Cont. mist.

"*Evening.*—Well purged, motions morbid and acrid; pain still distressing; pulse 80, full, and a sharp beat; tongue the same.—Repeat the leeches, *xx.*; repet. calom. et mist.

"20th.—Has not had any motion since last evening; pain considerably relieved by the leeches; tongue moist and clean; skin cool, and with a gentle perspiration; pulse 74, full, soft, and regular; he can take a full inspiration without pain, and he can lay on the left side.—Repet. enema purg. et haust. purg.; cont. salin. mist.; and apply a large poultice over the whole epigastric and hypochondriac region.

"*Evening.*—Stools extremely copious, feculent, and very morbid; is very much better; pulse, skin, and tongue natural.—Pilul. aloë. cum calom. no. 1. three times a day. Mist. amar. cum sennâ, ʒij. nocte manequ. Cont. poulticing, &c. &c.

"21st.—Stools scanty and dark co-

loured; slight pain in the side.—Pulv. jalap. comp. 3j. and cont. omnia.

"These medicines were continued daily till the 25th, motions being always morbid, offensive, and crude; he complains this morning of return of pain.—Fifteen leeches were applied immediately; and the purgative medicines, poultice, &c. continued; and a large blister was afterwards applied on the right side.

"28th—Mouth slightly affected; pain less; motions green, viscid, and tenacious, and very copious.—Cont. med.

"30th. Mouth very sore; considerable ptialism.—Omit the pills. Cont. mist. amar. cum sennâ; milk diet. Blister discharging freely; pulse much accelerated; pain diminished. Cont. mist. salin., poultice, &c. &c.

"*Nex.* 3d.—Stools copious, feculent, and of a dark-yellow colour; more natural; considerable fulness about the liver, and the ribs are evidently raised considerably; has rigors.—Cont. poultice and nitro-muriatic lotion.

"6th.—Stools perfectly natural; enlargement of the liver subsiding. Cont.

"9th. Stools regular; pulse 62; ptialism diminished; no rigors; bowels not sufficiently acted upon.—Pulv. jalap. comp. 3j.

"11th.—Stools copious; green, viscid, tenacious matter; has more pain in his side, chiefly felt at the margin of the ribs and towards the posterior part of the liver, and it is increased on a full inspiration; has pain in his shoulder, which shoots up from the loins; no rigors or shivering; mouth still sore.—Repet. pulv. purg., and apply sixteen leeches to the posterior part of the liver. Cont. poultice and nitro-muriatic lotion.

"*Evening.*—Fully purged; stools offensive, and almost black.—Cont. haust. amar. cum sennâ; mist. salin. febrif.; poultice, &c. &c.

"13th.—Has a dull, heavy pain in the side, but not at all sharp; his mouth is quite well.—Pilul. aloë cum calom. three times a day. Cont. omnia.

"16th.—The fulness and enlargement of the side very much reduced, but he has still a dull pain; stools improving very much.—Cont. ut antea.

"23d.—Gums again affected.—Discontinue the pills. Cont. alia.

"30th—Ptialism continues; he has been gaining ground daily, and his bowels are becoming quite regular; but he had another attack of pain in the side last night, precisely similar to that which he had on the 11th—Apply sixteen leeches. Pulv. purg. 3j. stat. Repet. poultice and lotion.

"*Dec.* 1st.—Much better; the pain greatly relieved.—Cont.

"This system was continued for near three weeks longer, with the occasional application of leeches; and he returned to his regiment, perfectly recovered."

Remarks. Mr. Annesley observes on this case, that "the morbid condition of the alvine excretions was almost incredible till the last week of his convalescence." "He was regularly purged every day—and the mass of foul, morbid matter that came from him was astonishing." Mr. Annesley queries, "could this have arisen from accumulations or morbid secretions?" We think that few physicians or physiologists will hesitate to say that these masses or morbid matters were generated from day to day—not merely removed piece-meal from an Augean stable. Mr. A. adds, that as purgation cured the disease, the foregoing state of the bowels "was not caused by purging." We are not quite sure of this. We strongly suspect that a much less quantum of purgative materials might have sufficed, had the patient been kept quiet in bed, with nothing but rice-water to live upon, and leeches every two or three days applied to the hepatic and epigastric regions.

We have, at this moment, under our care, a gentleman from whose bowels we can evacuate bucketfuls of "morbid matters," at any time, by active purgation. Yet if he be confined to bed—kept on chicken or veal broth—and takes small doses of the pulvis ipecacuanhæ compos. with the hydrargyrus cum cretâ, the motions soon become consistent, and as healthy as those of an infant. These are the people who become the prey of Charlatans, when swallowing daily doses of drastic purgatives that irritate every secreting gland and surface from the mouth to

the anus, and thus generate the masses of "MORBID MATTERS" which they pretend to merely eject, by means of their wonder-working cholagogues.

XII.

MAISON ROYALE DE LA LEGION D'HONNEUR.

EPIDEMIC CROUP. ANGINA PELLICULARIS.

M. Bourgeois, surgeon to the "MAISON ROYALE DE LA LEGION D'HONNEUR," has lately read a memoir before the Royal Academy of Medicine, respecting an epidemic which reigned in the above establishment nearly twelve months, and affected fifty-seven individuals, of whom five died. Some particulars of this malady are worthy of notice.

In the beginning of 1827, the mumps were epidemic, and when this disappeared, the more serious complaint of croup shewed itself in June of the same year. Two little girls were simultaneously seized in the outset of the epidemic. The first was 14 years of age, who, after complaining of general malaise and sore throat, with difficulty of deglutition, but without any fever, was attacked with dyspnoea, the voice became hoarse, with cough and croupy inspiration. The parotid and cervical glands were swelled, as were the tonsils. Eight leeches were applied to the throat, followed by cataplasms. In the evening, the prostration was extreme, and somnolency continual. The face was pale and tumid, the eyes fixed, the pupils dilated, the extremities cold. The breathing now became extremely laborious, and an emetic was prescribed, with a blister between the shoulders; but death took place the next morning.

The second case, at the same time, presented similar preliminary symptoms, except that the fever was intense, and the mumps were hardly perceptible. There was nothing to be seen on inspecting the mouth and fauces. An emetic was exhibit-

ed, soon after which the symptoms were rapidly augmented. The paroxysms of difficult respiration were tremendous, and in the course of the night, several portions of false membrane were discharged by coughing. This expulsion was followed by some relief to the breathing. In the evening of the second day, an expectoration of membraniform debris was established, mixed with mucus and some blood. A blister to the thorax. The expectoration continued, and the patient recovered, but not without the necessity of exhibiting two or three emetics to facilitate the expulsion of the false membranes.

This second case was scarcely terminated when six other girls were seized with the same complaint. In these the tonsils were swelled, and the velum palati presented pellicular spots, extending into the pharynx. There was no fever. The pellicular spots were cauterized with the muriatic acid. Every morning these false membranes or pellicles, were found renewed, and they were regularly cauterized. In some of these cases, fever rose, with tussis rauca, oppression, and somnolency; but the violence of the disease was abated in ten or twelve days, and they all recovered. We cannot follow our author through the whole of this epidemic, but the false membranes bore a conspicuous figure in all the cases. One or two more instances we shall yet notice.

A young girl, ten years of age, presented one of these pellicular spots at the orifice of the left nostril, her health being otherwise good. This spot continued for nearly a week without any change. On the eighth day a plastic inflammation occupied the whole of the fossae nasales, and false membranes soon appeared on the uvula, the tonsils, and the velum palati. On the tenth day there was ardor urinae, and the patient complained of a pruritus in the vagina. On examination the parts were found lined with a false membrane, thick and white, exhaling a fetid odour. The original angina extended into the pharynx; but ultimately was arrested, and recovery took place. In one other case the inflammatory exudation ex-

tended to the genital organs, and to the mucous membrane of the rectum.

One more case only shall be noticed. A young girl, ten years of age, presented a chancreous sore on the lip, with coryza, and copious secretion of fetid serum. On the third day, the malady had spread to the throat and respiratory conduits. On the sixth day she died. On dissection, a false membrane was found lining the left nostril—the fossæ nasales were filled with sanious and fetid detritus—the tonsils were covered with thick concretions, which extended two thirds down the œsophagus. A similar concretion, two or three lines in thickness, penetrated the glottis, larynx, and trachea, diminishing gradually as it approached the bronchia.

The author does not allude to the subject of contagion in this memoir. The application of the mineral acids appears to have been very useful, and the peculiar pellicular exudation very distinct.—*Journ. Gen. de Medecine.*

XIII.

BALTIMORE INFIRMARY.

ARTHROSIA ANTONICA.

[Dr. T. H. Wright, Reporter.]

We recommend to the serious attention of our surgical brethren, the following report, drawn up with a modesty, candour and ability, which do great honour to the reporter. We hope some of our metropolitan REPORTERS will imitate the example set them by Dr. Wright.

Case of Arthrosia Antonica.—"Elizabeth Henry, aged thirty-five, admitted into the Baltimore Alms-house 1st of May, 1828. She is of middle size, and well-formed, with black hair and eyes, and fair complexion; says she had led an active life, enjoyed good health, and borne children. When admitted, she could not stand without support, and was unable to walk, from pain in the upper half of the right thigh, and weakness of that limb. The day after admission she

had no fever or head-ach, pulse soft, slow, and equal; skin cool, no cough, tongue clean, appetite good, bowels regular, sleep natural, except from occasional spasms of the thigh. Thus the circulating, cerebral, respiratory, digestive, and nervous systems, wholly out of fault. The complaint of the patient was referred by herself entirely to the thigh, and a point in the front middle portion of the limb indicated as the seat of predominant sensibility. The patient stated that she was attacked suddenly, fourteen days before her admission into the Alms-house, by acute pain of the thigh, and from the moment of the attack had been unable to walk.

"The thigh now exhibited no mark of disease. There was no heat, inflammation, tension, or enlargement; the skin and muscles soft and pliable, and not tender to the touch, except pressed towards the centre of the limb, when there was shrinking and complaint. The hip was neither swelled, nor super-sensitive, even to firm pressure, and the whole limb, compared with the opposite one, betrayed no visible mark of difference. On my pronouncing the apparent absence of local disease, the patient said the pain was in the bone. I confess frankly that I regarded this poor woman as either ignorantly or wilfully exaggerating a common affair of chronic rheumatism.

"The patient had taken some medicine, and the part had been freely blistered, (without relief,) before her admission into the Alms-house. A gum pill, which has produced in the institution much relief from chronic rheumatism, composed of *guaiacum*, camphor, and *hyosciamus*, was directed for the patient, with anodyne embrocation of the part. I saw this case every other day for a fortnight, during which time its circumstances did not sensibly alter. The patient continued without general indisposition preserving a quiet pulse, cool skin, clean tongue, and good appetite, the limb retaining the appearance and state before described: she expressed herself relieved from pain by the pills, and asked to have them renewed when out. On the 16th

of May she requested me to look again at her limb, stating that it had been severely painful the night before, and that it was now shorter than the other. The thigh was examined, and exhibited its usual appearance; on comparing the lower extremities, the position of the right leg was natural, but the bottom of the foot presented on a line with the internal malleolus of the other leg; that is, the right limb appeared about two inches shorter than the left. After every attention to the equilibrium of the pelvis, and the full, but easy, extension of the limb, the right foot rested an inch and a half higher than its fellow. The hip was next carefully examined. The dorsum illi was free, and the head of the femur could not be felt. These circumstances, and the natural position of the limb, established that there was no dislocation. But there might be something as bad, and on gently extending, raising, and rotating the limb, a bold, rough crepitation was as distinctly felt as in free recent fracture. The head of the femur, or the acetabulum, or both, were gone, and the limb had been drawn up by the muscles in its natural axis.

"She is at present, (four weeks after destruction of the joint,) able to sit up, and even walks a little by support of one crutch. Her appearance betrays no mark of impaired health, and there is no longer pain or soreness in any part of the limb. In her case, too, the only inconvenience is shortening, and disability of movement; the injured limb is two inches short, and can be advanced or retracted by its own muscles only a very limited space. The aspect, or presentation of the limb is natural; in standing, sitting, or lying, there is neither inversion nor eversion of the foot. It may be noticed here that at one period, soon after the articulating surfaces were destroyed, the limb was found to have lost its proper attitude, and to lay upon the other in a state of complete inversion. It was easily restored to its natural aspect, and by restricting the patient to a position on her back for some time, it did not again decline from its proper axis.

"This is a melancholy case, and suggests a lesson of modesty of useful import; namely, to distrust our sagacity in forming a judgment of obscure affections. To

myself at least, two such cases occurring nearly together, in neither of which the terrible tendency of the disease was fully apprehended, until revealed by its consummation, plainly admonish the necessity of close, careful, and circumstantial investigation in such cases, as well as the propriety of proceeding on the principle of guarding against the worst that might happen, even though the danger of that result is not plainly apparent. I cannot charge myself with neglect or slight of duty in this case; the continuance, general health of the patient, and the external state of the parts deceived me, and were calculated to deceive.* But the thigh and hip were frequently and carefully examined. The poor woman herself was right: she constantly declared that the disease was in the bone, and this is not the first time a patient's sensations have been more faithful than the tact of the profession.

"All I learned further than has been already told, was that the pain commenced with a 'sudden dart,' in the front of the thigh, two inches below the trochanter, while the woman was standing in market. On the first days of pain, a few vesications formed on the surface of the thigh, about the seat of the pain, but these soon subsided and left the part free from any after appearance of disease. The patient complained for the first time on the 16th of May, (the day after the joint broke up,) of pain at the top of the knee, which continued severe for many days.

"The total absence of constitutional concern in a work of local destruction

* "It is a state of things in fact, not easy of detection, and even if discovered, perhaps still less susceptible of safe conduct. There is little reason to conclude that after admission into the infirmary, the final consequence could have been averted by any mode of management."

of so serious a character, is an unusual phenomenon, fitted to mask the nature of the disease, and divert from calculation on an issue of which there existed so few and equivocal admonitions. When this woman was admitted into the institution, pain of the right thigh not constant, nor very acute, with loss of motive power in the limb, constituted the only marks of disease, nay, the only evidence of decline from the most perfect state of health. After entering the infirmary the case did not at any time present even an ephemeral feverish tumult; the skin was always cool, and pulse temperate. The pain, rather uneasiness of the part, though seldom wholly absent, was never distressing in the day, and was readily averted or mitigated by an anodyne at night. The ultimate destruction of the joint, though attended by extreme distress of feeling, produced scarcely a sensible febrile movement, and the faint disturbance of circulation which attended the process in question ceased very soon, and left the patient with a pulse calm and quiet, as in health.

"The condition of the limb itself is not less remarkable than the constitutional circumstances just adverted to. It has not even now, (7th of June,) at all wasted or altered in form. Its state as to size, temperature, and all circumstances, shortening alone excepted, is perfectly natural, and there is no longer pain of the part during a state of strict repose. This woman now gets out of bed, (to make necessary evacuations,) and accomplishes the task by lifting the thigh and leg off the bed with both her hands. She says that when she is up resting on the sound limb, the affected leg and thigh turn uniformly of a very dark, or in her own language, black colour."*

We solicit the attention of hospital surgeons to this case, and should be glad to learn the sentiments of the experienced members of the surgical profession on it.—*Ed.*

* Amer. Journ. of the Med. Sciences, No. V.

XIV.

LA CHARITÉ.

I. EXCISION OF A NÆVUS FROM THE UPPER LIP OF A CHILD ONLY SEVEN WEEKS OLD.*

On the 21st of January of the present year a female infant was brought to M. Roux at La Charité, with a deep red tumour, of soft consistence, occupying the whole thickness of the upper lip, and extending as high as the base of the septum narium. At the end of the nose, was a smaller spot of the same description. The disease had commenced, according to the statement of the mother, as a reddish stain, and after extending from the septum of the nostrils to the edge of the lip, had grown into a tumour. From this period, and especially within the three weeks immediately preceding her application its increase had been rapid. In consequence probably of the sucking of the child, the skin over the nævus had ulcerated, and frequent though small bleedings were occasioned by the least disturbance of the tumour, or whenever the infant cried or became agitated. It was evident that if something were not done the existence of the little patient was at stake from the frequent hæmorrhage, but then, on the other hand, M. Roux was unwilling to run the risk of operating on so young a subject, pulled down, and debilitated as it was. The repugnance of the surgeon was confirmed by the remembrance of two cases of children as young as the present, on whom he had operated for the hare-lip, and one of whom died the same day whilst no union took place in the other. In a third child, nine months old, the removal of a nævus was followed by syncope of several hours' duration, which all but proved fatal.

The mother, however, in the present instance, returning after a while to M. Roux, and wishing that something should be done, he determined to excise the tumour. The infant accordingly being placed between the knees of an assis-

* Journ. Hebdomadaire, No. 21.

tant, the surgeon took hold of the tumour, and removed it with a couple of strokes of the scissors. A little blood was thrown out by some arteries, but an assistant arrested the bleeding by compressing the lips with his fingers, whilst M. Roux with a bistoury removed a small portion which remained at the septum narium. The spot at the end of the nose was left untouched, in order that the operation might not be prolonged; pins were employed to keep the lips of the wound in contact, and the parts dressed as after the hare-lip operation.

The hæmorrhage was very slight, and no bad accidents of any kind ensued. Two hours after the operation, M. Roux removed the bandage, and found the cut edges united, except above, where the pressure of the pin had produced a little ulceration. Although the union was so recent, the surgeon removed the pins, and applied merely an uniting bandage, believing that the muscular efforts at so tender an age would not be sufficiently strong to tear up the adhesions which had formed. The little patient went on very well, the ulcer healed, the cicatrix became a mere line and was scarcely seen, and at the date of the report in the *Hébdomadaire*, the only deformity remaining was the sense of the part of the partition of the nose. If the spot upon the nose itself should increase, which it had not at this time done, M. Roux proposed to remove it; but, unless such augmentation of volume took place, he thought no necessity existed for an operation.

The treatment of nævi is really a matter of considerable interest, because it very frequently devolves upon the surgeon, both in private and hospital practice. In the higher classes of society, where personal appearance is all in all, they are looked on, when occurring in certain exposed situations, as very serious ills indeed; and the doctor who can cure them with the least scar, or no scar at all, will be thought by his patients a very clever man. In the slightest kinds of nævi, mere maculæ in fact, arising from enlargement of the minuter vessels, without tumour, Mr. Brodie is in the habit of adopting the following proceeding. Selecting

the largest of these little vessels, he punctures it with a lancet, and gently touches the puncture with the caustic potass scraped into as fine a point as possible. Vinegar is immediately applied to stop the penetrating action of the alkaline caustic, and prevent the formation of a scar; which indeed would be full as bad as the disease.

In the case of M. Roux's which we have related, excision was performed, and so far as the report has hitherto gone, performed with success. In that case, from the situation of the nævus, the measure, no doubt, was preferable to the ligature, but the latter, we believe, will answer best in the majority of cases. Vaccination, we fancy, must be regarded rather as a matter of curiosity, than of any extensive practical utility in the treatment of nævi; for in a case which we lately saw at St. George's Hospital, it has totally failed. If the tumour be very small, it has answered, and for aught we know, it may answer again; but we honestly confess, that we put but a small degree of faith in its powers. As an instance of what these nævi will at times run into, if not removed by surgical art, we may briefly allude to the particulars of a case which occurred to Mr. Tyrrell, at St. Thomas's Hospital, and was reported at the time in the *Medical Gazette*.

A woman, ætatis 51, emaciated, but in aspect tolerably healthy, was admitted with a swelling on the upper part of the outside of the left thigh, somewhat larger than a goose's egg, oval in shape, and rising abruptly and almost perpendicularly from the surrounding skin. It was free from pain, firm, but little elastic, and its colour was nearly that of the integuments, except at its central and prominent part, where it was a deep purple. The patient stated that from birth she had had a nævus in the situation of the present tumour; that fourteen years previously to her admission the nævus bled after being scratched, and she soon perceived a swelling, which had gradually increased to the size described; that it bled occasionally, and that this had occurred a few days previously to so alarming an ex-

tent, as to lead her to wish for the removal of the disease. The tumour was removed accordingly, by Mr. Tyrrell, who found it to be firmly attached to the fascia lata and fed by an artery as large as the radial, which required to be tied. The disease was discovered to be a mass of a firm homogeneous texture and yellowish colour, "almost precisely resembling the substance into which the testicle is converted when affected by sarcocele." At the most prominent part, immediately under that point of the surface which appeared purple, was a little cyst, the sides of which had collapsed, and which appeared to have contained blood.

These cases of *nævi*, and of tumours growing from *nævi*, are analogous in their nature to those other anomalous affections of the smaller branches of the arterial system, which occur upon the scalp, and even in the tissue of the bones themselves. They are all members of one great family, closely allied to aneurism of the larger arterial trunks, but differing from that in many important features, and requiring very different surgical treatment. It is a subject on which we have yet much to learn, and we shall frequently return to it as opportunities present themselves. We have already dedicated one or two articles to the aneurismal dilations of the scalp, and trust we shall do some service to the state by collecting and collating facts as they arise. It is by this mean—by keeping pace with the progress of our science, or even, if possible, marching in its van, that medical periodical literature will acquire a really intrinsic and practical importance; but never will it do so by indulging in ribaldry, personal invective, and defamation,

"That spits out poison, and bears bloody gore

"At all that come within his ravennings.

"And speaks licentious words and hateful things."

II. INJECTION OF THE TUNICA VAGINALIS OF A HYDROCELE—DEATH FROM PERITONITIS—MORBID STATES OF THE ILEO-CÆCAL APERTURE, AND LIVER.

The following is a curious case, and perhaps may give birth to some reflections in the mind of the reader.

A "public writer," (*kind not stated*), *ætatis* 68, applied to M. Boyer with a good sized hydrocele, of six or seven years' duration, and rather unusual in its form. The health of the patient was good, save that, for the last three months, he had suffered from frequent colics in the hypogastrium, increased upon walking, and attributed by himself to the tumour in the scrotum. Injection with warm wine was performed by M. Boyer, which produced but little pain, and was not succeeded on the following days by inflammation sufficient to lead the surgeons to count upon a cure. Suddenly, in the midst of this incertitude, symptoms of acute peritonitis supervened, and carried the patient off.

On dissection, sero-purulent effusion, recently formed false membranes, and the other marks of severe peritoneal inflammation were discovered. There was no communication between the sac of the tunica vaginalis, and that of the peritoneum; in other words, the hydrocele was not congenital, and, consequently, the inflammation produced by injecting the one could not have extended directly from the one to the other. On examining the cæcum, it was found to be the seat of considerable and apparently long forming disorganization. Its walls were thickened, the mucous membrane towards the valve was ulcerated deeply, and the ileo-cæcal aperture itself so straitened, "by what has been denominated, properly or improperly, cancer of the cæcum," that the finger was with difficulty made to pass through it. In the liver were several large masses of structure, "called encephaloid," the largest the size of an orange, in the neighbourhood of which was found a great vein, with a similar sort of substance. With respect to the tunica vaginalis, it was almost free from inflammation, and contained in its cavity a quantity of clear serum, whilst the tunica vaginalis and albuginea, or, as many term it, the tunica vaginalis and vaginalis reflexa, were united by transverse bands of lymph or bridges, which crossed the cavity in different directions.

The question very naturally arises, on

what did this rapidly fatal peritoneal inflammation depend—on the operation for the hydrocele, or the old disorganizations of the liver and cæcum? We see no reasons why these disorganizations should *per se*, give rise to peritonitis at this particular time, nor do we believe that, *per se*, they did. It is a curious, but still well established fact, that the traumatic inflammations or depositions set up after injuries or operations, will all always have a tendency to seize on or invade the weakest organs in the affected individual, or parts which are rendered *pro tempore* weak, by accident. Thus, if a man receives an injury of the head, together with a simple fracture in some other bone, and purulent depots take place in the liver or the lungs, suppuration will frequently take place also in that remote and simple fracture. We could give many other illustrations of the principle in question, but we need not hunt the subject ad extremum, suffice it to say that such is the fact. With regard then to the present case, we believe that the operation for the hydrocele was the exciting, the disease in the abdomen the predisposing, causes of the rapid peritonitis which destroyed the patient. If so, this is another instance amidst the sad array that is marshalling around us, in all parts of the globe, where a trifling operation, perhaps for a mere inconvenience, gives birth to fatal inflammation or depots of pus.

III. ABSCESS BETWEEN THE VAGINA AND RECTUM—OPENING INTO THE LATTER—MODE OF LAYING IT OPEN.

We glance at this short but interesting case, because it displays M. Roux's method of laying an abscess open in an awkward situation, viz. between the rectum and vagina.

The patient was a woman twenty-six years of age who had piles, and was attacked with puerperal fever after her confinement. During the course of the fever, an abscess formed in front of the anus, which burst into the rectum, but not externally in the perineum. On her reception in the surgical wards, there were seen the traces of old piles, but no external sore or sinus. On passing the finger

into the rectum, there was felt in its anterior wall, immediately opposite the posterior wall of the vagina, an orifice large enough to admit the little finger, surrounded with irregular projections, but not communicating with the cavity of the vagina. It was therefore an abscess which had opened into the rectum, but not a recto-vaginal fistula, and the surgeon was to take care in operating, that he did not lay open the vagina, and convert it into a case of the latter description. Instead, therefore, of cutting from the perineum, M. Roux laid the patient on her left side, introduced the finger into the rectum, so as to feel the orifice in its wall, carried the bistoury inward, on the finger, and divided the gut and cellular tissue, from the orifice outward to the perineum. Some portions of skin were removed, and thus the sinus, or rather the deep-seated abscess was laid open from its bottom, and converted into a wound, with a little loss of substance. With proper dressings, the patient was perfectly cured, having merely had a retention of urine on the evening of the day of operation, which was obviated by the employment of the catheter.

IV. ANGINA ŒDEMATOSA—TRACHEOTOMY—DEATH.*

Marie G—, æt. 42, had for three days been affected with violent pain in the throat, when she entered La Charité, on the 25th of January last. The pain was severe, and greatly augmented by inspiration or pressure—the voice was whispering—speech difficult—dyspnoea great—thirst excessive. On strongly depressing, and at the same time drawing forward the tongue, the epiglottis was seen about three or four lines in thickness, infiltrated, and possessing little motion. She was bled to 10 oz., had fifteen leeches to the front of the neck, and was ordered demulcents, which produced a little calm toward evening. On the 28th, however, the submaxillary glands were swollen and painful—the whole of the throat was the seat

* Clinique.

of lancinating pain—and there was head-ach, fever, and the râle sibilant in the chest. Forty leeches were placed on the neck, sinapisms on the feet, and next day the symptoms being much the same, two grains of the tartar emetic were given in liquid, which produced two fits of vomiting and a stool. On the 28th, deglutition was impossible, fluids flowing back from the nose, there was orthopnoea, and the pulse was 145.

for doing it, with any probability of success, is gone by.

XV.

GLASGOW ROYAL INFIRMARY.*

I. STRANGULATED HERNIA.

On the 29th the patient was suffocating, and after endeavouring in vain to dilate the glottis with the finger, M. Roux performed tracheotomy, when five or six inspirations appeared to rekindle the flickering vital flame. A silver tube was placed in the wound, and the patient found herself better in the evening. The symptoms were more favourable still on the 30th, but the difficulty of breathing was again extreme on the 31st. The tube was removed and a small whalebone bow with its two extremities curved in the wound, so as to keep the edges asunder, was introduced in its stead. On the 1st of February, liquids were swallowed with greater ease, but the fever ran high, and the prostration was considerable. The patient lingered on till the 6th, when she died.

Dissection. To the right, and behind the larynx was an abscess an inch and a half in height, filled with thick and yellow pus. On the thyro-hyoid ligament of that side was another small and circumscribed abscess. Within the larynx presented four small lenticular ulcerations. The mucous membrane of the trachea was covered with a membranous-like mucus, and the lining membrane of the œsophagus was yellow.

Although the operation failed, it was perfectly warranted and proper. It cannot be right to see a patient dying of suffocation from disease going on in the larynx, and withhold the chance the operation of opening the trachea affords. For our own parts we believe that tracheotomy is performed too seldom, rather than too often, and even when its performance is actually decided on, the surgeon, we fear, not unfrequently delays till the time

In no part of surgery have greater practical improvements taken place within the last half century than in hernia. The anatomical descriptions of the older authors are obscure, and frequently erroneous, and the bare perusal of the treatise of Mr. Pott upon ruptures, must shew satisfactorily how much we have added to our knowledge of the disease, and our modes of treating its different varieties, since the time of that able surgeon. Much, however, is yet a matter of dispute and doubt, which can only be removed, if they ever are to be removed, by carefully noting facts as they arise, and erecting on them, and them only, rigid and right conclusions. With this object in view, we are led to notice some cases of hernia, and tumour bearing the resemblance of hernia, that occurred to, and are detailed by Dr. Mac-lachlan.

Case 1.—Omental and Intestinal Femoral Hernia—severe after Symptoms. A woman, æt, 36, had been subject for ten years, to reducible femoral hernia on the right side, and for three to the same on the left. The latter, however, descended in the course of fifteenth September, 1827, and could not be returned by the patient as before—in the course of an hour the tumour became painful—retching and vomiting—quickly followed with the extension of the pain to the abdomen—she was bled, and the taxis ineffectually employed for a quarter of an hour by a surgeon—and, in 44 hours after the first occurrence of the descent, the patient was received in the Royal Infirmary. The tumour was then, 5 p. m. of the 17th, about the size of a large hen's egg, elastic and

* Glasgow Med. Journ. No. V.

very tender on being handled; there was much pain of abdomen, increased upon pressure; the pulse was 104, small, but firm; she vomited whatever she swallowed, and occasionally hiccuped; and, lastly, there had been no stool since the hernia descended. The warm bath, bleeding, and taxis were tried, without effect, and at 7 p. m. the operation was performed; the stricture, which was firm, divided by means of Cooper's knife; the contents of the sac, a knuckle of small intestine, and a little omentum, returned into the abdomen; and the patient was ordered ℥ss. of castor oil, and afterwards a laxative enema. The gut was of the colour of Port wine.

Numerous stools were had on the 18th, but some pain in the abdomen remained, and was aggravated next morning, when eighteen leeches were applied, but without much relief. Castor oil and an enema were ordered, and the former repeated twice, which brought away upon the 20th, some dark and lumpy stools. The pain had increased so much during the night, that 16 ozs. of blood were abstracted with relief, though not perfect, to the symptom in question. On the 20th, the countenance had a tinge of yellow—the pulse was 120, rather full—tongue white—thirst moderate. Twelve leeches were applied to the abdomen, and a scruple of calomel exhibited. Aided by an enema, the calomel produced some dark-coloured stools, the pain of the abdomen subsided, the unfavourable symptoms passed away, and the patient was dismissed on the 9th of October.

"From the severity of the after symptoms, it will be evident, that any farther delay in having recourse to the operation must have proved fatal. It appears to me, that the active employment of the taxis should be confined to the earlier stages of the incarceration, while the contents of the sac are as yet but slightly inflamed. When, however, the tumour becomes extremely painful, and the constitutional symptoms indicate the supervention of high inflammatory action, the taxis will prove worse than useless. The intestine and omentum are now gorged with blood, and if any portion of mesentery has descended, it will be thickened from infla-

tration; the obstacles thus opposed to reduction will be greatly increased, while the chance of doing mischief is almost certain. In the following case, the frequent and unskilful employment of the taxis appears to have had no inconsiderable share in the production of the fatal result."

The particulars of the case alluded to are these.

Case 2.—A sailor, 46 years of age, had had a scrotal hernia of the right side, which was easily reduced and kept up by a truss. On the 26th of May, it came down, in consequence of neglecting the truss, his efforts were unable to return it, the usual symptoms of strangulation followed, and being at sea, without any medical aid at hand, his companions made numerous but unsuccessful efforts at reduction. At 5 p. m. of the 28th, when he entered the infirmary, a tumour appeared in the right side of the scrotum very tense, and painful when handled, the integuments over it glossy and of dark red colour—pulse 100, small and wiry—tongue furred—great thirst—constant nausea and retching—skin hot and dry—face flushed—no stool for six and fifty hours.

"A consultation was immediately held, and the operation decided upon, without making any trial of the taxis. On opening the sac, about fifteen inches of the ileum with its mesentery, were found strangulated. The intestine was of a deep red colour, but had not lost its natural shining appearance. The mesentery was firm, hard, and uncommonly thickened, partly from effused lymph, but mostly from ecchymosis. The thickness may be stated at $\frac{1}{4}$ of an inch. The obstacle to the return of such a mass into the abdomen, must be at once apparent. On passing the finger to the point of constriction, it was found so open, that it passed with ease into the cavity of the abdomen. The hernia being one of long standing, the upper and lower rings had, as it were, become one. Cooper's knife was introduced on the finger, and the edge of the transversalis muscle divided directly upwards, but it was only after repeated

enlargements that this unyielding mass could be returned. This being accomplished, the wound was brought together, and dressed in the usual manner. He had castor oil with laudanum, and a laxative enema."

Several stools were obtained after the operation, but he passed a bad night; the peritoneal symptoms made head, notwithstanding the employment of two 16-oz. bleedings, and a large dose of calomel, depression supervened, and at 7 p. m. of the 30th, the patient sank.

Dissection. Marks of acute peritoneal inflammation were present, and the mesentery of the ileum, for about twenty inches, was from $\frac{1}{4}$ to $\frac{1}{2}$ of an inch in thickness, as well as firm and hard from effused blood. Three livid patches, the largest the size of a shilling, were found on that portion of gut which had been strangulated, although it had in no point actually given way. The constriction was formed "by the border of the transversalis muscle." The ring was much dilated, and admitted two fingers with ease—the spermatic cord was greatly enlarged.

In the following remarks on the use of the taxis we fully concur, and certain we are, that we have witnessed cases illustrating their truth.

"It will be evident from the size of the aperture by which the intestine had descended, that, had the taxis been scientifically employed previous to the infiltration of the mesentery, the contents of the tumour might have been readily returned: but it will be equally obvious, that, at any period subsequent to this event, it would have proved not only unavailing, but highly injurious. The ecchymoses arose, no doubt, from the rough efforts made by the sailors to reduce the rupture, but had the engorgement arisen simply from constriction, the same objection to the use of taxis would apply. I am no enemy to the employment of taxis; I only object to its indiscriminate adoption, without any reference to the history or stage of the case. I also believe that in many cases the fatal termination usually ascribed to the operation for strangulated hernia, might, with more propriety, be given to the repeated and long contin-

ued use of the taxis. In the two cases above related, the incarceration was nearly of the same duration. In the one, the hernia was smaller, more acute, and therefore more dangerous, the taxis was but little employed, the operation was had recourse to, and the patient recovered. In the other, the hernia was of long standing, the opening into the abdomen large, therefore comparatively less dangerous, many efforts were made, the operation was performed, and the patient died."

II. HYDROCELE OF THE SPERMATIC CORD COMPLICATED WITH PERITONITIS.

It has long been known to surgeons, that encysted hydrocele of the spermatic cord, especially if situate in the inguinal canal, so as to receive the impulse of coughing, is extremely likely to be confounded with an inguinal hernia; and, indeed, under certain combinations of circumstances, the diagnosis, we conceive, must be next to impossible. Surgeons, we say, have long been aware of the occasional occurrence of this difficulty; but only in the present age have wretches been found so anti-professional and base, as to make it a theme of calumny and vituperation against individual practitioners of surgery. For an error of this kind, at St George's Hospital, Mr. Jeffreys was "shown up," (we believe that that is the phrase;) and the one we are going to relate formed one of those tales of "butchery and blood" which graced the pages of the *Lancet*, from the pen of that very promising young gentleman, Mr. Carter.

Case.—James Porter, two years of age, was admitted, on the 24th of June last, with an oblong elastic tumour in the upper part of the right side of the scrotum. It was painful on being handled, the size of a small walnut, and entered and distended the external ring—the integuments of the scrotum moved freely over it, and were not discoloured—the cord felt enlarged, and lay immediately below and posterior to the tumour, but separated from it—the cord was behind it, and felt enlarged—the abdomen was distended, tympanitic, and the child cried when it was touched, particularly below—there had been, for

eight days, no motion from the bowels; and nausea and retching for the last two—the pulse was 120—skin hot—tongue white—the thirst extreme. His mother said that she first observed this tumour, three months before, in the situation of the external ring; that it gradually enlarged, and descended towards the scrotum—that pressure made it disappear, which it did with a gurgling noise; that she had been recommended by a Surgeon to get a truss to keep it up; that it had continued in the situation it was in on his admission for two weeks before that time; and that, in consequence of the constipation and vomiting alluded to above, a surgeon had been called in, who had tried, without effect, to reduce it by the taxis.

“Here, then, were all the symptoms of incarcerated bowel, with a tumour filling the external ring, which, from its situation, and the smallness of its size, could not by any possibility, be distinguished from inguinal hernia. The taxis was tried, but without any change in the tumour. As the symptoms, as yet, were not very urgent, and as the incarceration appeared to be rather *per engagement* than strangulation, the boy was ordered at (at 2 P. M.) 3 grains calomel; in an hour after to have 3j. castor oil, and in two hours more, a laxative enema, and to be placed in the warm bath. Should these means afford no relief, a consultation to be summoned for 6 P. M.

“The enema brought away a pretty large stool composed entirely of hardened balls and some blood; but there was no indication of the medicines given by the mouth having contributed in any way to it.

“Consultation met at six o'clock. No relief from the stool. The boy was more feverish and restless. Complained more on the tumour being handled. Abdomen still swollen, hot, and tender to touch. Pulse 140. Skin parched. Face flushed; in short, a considerable aggravation of all his symptoms. A moderate trial of the taxis having again failed, it was decided to open the sac, and ascertain the nature of its contents. At 7 P. M. this was done in the usual manner, and on laying open the investing membrane,

a gush of clear fluid, followed by a considerable quantity of thick jelly, was pressed out, showing the tumour to be hydrocele of the cord.”

The parts were brought together, and a compress lightly applied, whilst three grains of calomel, and afterwards infusion of senna were given to procure evacuations from the bowels, which took place on the following morning, although, at that time, he was still very feverish, and cried when the belly was touched. We need not follow out the details of the case, suffice it to say, that although a temporary improvement took place, the child fell back again, got gradually lower, and died on the 4th of July, just ten days after his admission.

On dissection, the abdomen contained nearly a pint of purulent fluid, the peritoneum was pale, the intestines were enormously distended with flatus, and at some points slightly adherent. The spermatic cord, from the testis to the inner ring, was hard, and enlarged to nearly three times its natural size, whilst, within its sheath, an abscess was found, containing two drachms of pus. The left side of the chest contained about twelve ounces of sero-purulent fluid, and the lung was covered with a thick layer of lymph.

“All surgical writers agree as to the extreme difficulty of distinguishing hydrocele of the cord, when small, and when it distends the external ring, from inguinal hernia, even when none of the symptoms of strangulated bowel are present; but when peritonitic symptoms exist, with absence of stools, discrimination becomes absolutely impossible. Even Mr. Pott, a competent judge, one would think, was much puzzled in a case of hydrocele of the cord, where no febrile symptoms were present. A lad of 14 had a large tumour, full and tight, possessing the whole spermatic pro-

cess and scrotum down to the testicle, which was independent of it, not tender to touch, unless pressed hard. It bore so hard against the opening of abdominal muscles, that Mr. Pott could by no means feel the spermatic process. He had had no stool for five days. 'Some of these circumstances were of importance, and might be occasioned by a stricture on the intestinal canal ; but, on the other hand, his pulse was soft, calm, and quiet. His skin was cool ; he had neither tight belly, nausea, hiccough, nor vomiting, nor any other symptom deducible from such a cause. From the mere appearance and feel of the tumour, I should have supposed it to be caused by water ; but the difficulty of distinguishing the spermatic process above, the freedom of the testicle below, and the want of stools, made me hesitate. He tried the taxis, and not succeeding, he, in the absence of urgent symptoms, gave him a purging mixture and an enema, and bled him. His medicine operated in *two hours*, and he was relieved. But Mr. Pott was not satisfied. 'I examined it again and again, and was still more positive that it contained a fluid ; but whether that fluid was in the tunica vaginalis, or in a hernial sac, I could by no means be clear. However, as there was no possible means of getting rid of it but by an opening, I determined to make one with such caution as to be prepared for whatever might happen.' The treatment adopted in both cases was precisely the same, only in Mr. Pott's case bleeding was had recourse to ; but surely the diagnosis was much more difficult in my case than in Mr. Pott's. Other cases might be cited to prove the difficulty of diagnosis. I shall content myself, however, with the following from Mr. Dewar's paper in the *Edin. Med. and Surg. Journ.* 'I was requested by Dr. Stenhouse to visit a patient of his, who was labouring under hernia. The man was suffering from pain and distention of the belly ; frequent vomiting, and obstinate costiveness. There was a firm elastic swelling, about the size of a pigeon's egg, occupying the inguinal canal. He complained of very little pain on handling the tumour. When an attempt was made to return it into the belly, it receded in a slight degree within the canal ; but returned to its former situation immediately on the fingers being removed. All the usual means of effecting reduction were tried without success, and the operation determined upon. When the tumour was opened by Dr. Stenhouse, a small quantity of a glairy fluid

ran out, and the finger was passed to the second joint, in a shut sac, which had no communication with the abdomen. Of course no relief followed. His bowels, however, ultimately yielded, and he got well. I do not yet know, after frequent reflection upon this very interesting case, how it could be distinguished with certainty from hernia.'

"The circumstance of a stool being passed is by no means decisive of the absence of strangulation. An enema frequently brings off fæces from the colon and rectum, in cases of incarceration. Mr. Tyrrell mentions a case in which even four copious stools were passed, notwithstanding the existence of strangulation, which afterwards required the operation. 'The sac contained a portion of intestine highly inflamed, and perfectly incarcerated.' The man died, and on dissection, the following is stated as the condition of the gut :—'The portion of intestine which had been strangulated consisted of a complete fold of the ilium, including the whole diameter of the gut ; it had still the mark from the stricture upon it, and was much more discoloured than any other part.' The fæces, therefore, could not have passed this constriction ; they must have been furnished by the bowel lower down than the point of strangulation. It is evident, from the case above detailed, that the child laboured under peritonitic, and perhaps pleuritic symptoms on admission, the consequence of long-continued constipation, and the irritation of worms—that there existed a tumour in the situation of inguinal hernia, which could not be distinguished from that disease—that the history furnished by the mother was every way calculated to mislead—that there was constipation of many days' continuance. The taxis having failed, and the inflammatory symptoms continuing to increase, there was no alternative left for the surgeon. He must have ascertained the nature of the contents of the sack : if hernia, he was right ; if hydrocele of the cord, he could scarcely be said to be wrong, for this also requires such an operation for its cure."

When Dr. Machlachlan remarks, that all

surgical writers are agreed on the extreme difficulty of distinguishing hydrocele of the cord from hernia, he is wrong, most decidedly wrong. It is true that Mr. Pott was somewhat puzzled, that Sir Astley Cooper sees a difficulty, that Mr. Jeffreys and the surgeons of the Glasgow Infirmary, and Dr. Stenhouse, and many other people have at different times been mistaken, but what, we would ask, are Mr. Pott and Sir Astley, and the rest, to the able, the distinguished, the practical writers in the *Lancet*? They find no difficulties—they make no blunders—they, and they alone, are exempt from uncertainty and doubt. What! though the hospital reporter for the *Lancet* be a mere raw student, who never fledged a blade, save his own peculiar weapon, on any human being in his life—what, though if put to treat cases himself, he probably could not tell an aneurism from a rupture—what, though the natural and ancient order of things be reversed, and the pupil be the critic of his master, not the master the instructor of the pupil, yet think of the liberty of the press; think of the sacred office of the *Lancet*; think of its imperious obligation to revile the profession, and every respectable man to be found in it! Aye, your men “of warm feelings,” are the only men that are really “independent,”—and fit to be entrusted with the characters of their neighbours. Vive la calomnie!

XVI.

FEVER HOSPITAL, CORK STREET.

MEDICAL REPORT OF THE HOUSE OF RECOVERY, AND FEVER-HOSPITAL, CORK STREET, DUBLIN, FOR THE YEAR, 1827.
By JOHN O'REARDON, M. D.

The importance of such reports as these from public institutions is now sufficiently appreciated, and Dublin has long set a good example to this metropolis—an example which, we grieve to say, has not been followed. Why do not the talented medical officers of our own FEVER-HOSPITAL present their brethren with the results of their ob-

servations, in the the form of annual MEDICAL reports? We hope this hint will stimulate the physicians of that institution to the undertaking.

Dr. O'Reardon treated, in the year 1827, eight hundred and three patients with fever in the hospital. He calculated that about six sevenths of the continued fever cases were complicated with various degrees of visceral affection—namely, with sub-inflammatory ailments of the head, lungs, fauces, stomach or intestines, or with rheumatism. In some cases, only one organ was affected materially—in many cases, two or even three organs were contemporaneously inflamed in a greater or lesser degree.

“In the fully formed common Fever of these countries we observe an elevated temperature of body, acceleration of pulse, some degree of head-ach; foulness or rawness of tongue, not unfrequently enlargement of this organ, sometimes thickness of it, at other times a parched, glossy, or a dry rough chopped state of it, resembling a thinly incrustated blood-oozing sore; face either flushed or of a soiled dusky aspect, and of a semi-bloated appearance in the early stage of Fever; respiration somewhat accelerated and oppressed; nausea, thirst, costiveness; epigastrium full, and over-sensitive to the tact; liability to general abdominal soreness and inflammation: aching of various parts of the body, namely of the spine, joints, thighs, and arms; a sense of general lassitude and heaviness: a state either of restlessness or of somnolency. Such a condition assuredly belongs to a general internal subinflammatory action of the system, an action like all inflammatory movements, mainly depending on and kept up by an alteration and derangement of the circulation. When Fever is high the general subinflammatory movement in question often assumes a more decidedly inflammatory turn; and if it be not complicated from the beginning, in the progress of the great majority of cases it becomes extended to one two or more of the organs of the head, thorax, and abdomen, or to the muscular fibres, their membrane and tendinous aponeuroses, so as to cause rheumatism.

"Combined with the general subinflammatory, or inflammatory state in question, there usually is a nervous condition which modifies the fever in some degree.—We likewise often observe symptoms of vitiated bile and disordered functions of the liver and stomach, probably arising from the increased temperature of the body, and the altered state of the circulation, and re-acting on the Fever so as to produce corresponding modifications thereof. Many of our patients are seized at the same time with general pyrexia and visceral inflammation. In some other instances the local disorder is the primary complaint, attended with what is commonly termed Symptomatic Fever. The former course of attack belongs to the genus which is the leading subject of this paper, viz. to general continued Fever, embracing its complications. The latter might in like manner be classed as a species of the same genus.

"I conceive that in a nosological table, as well as in the mind of the practising physician, the *Febres* and *Phlegmasiæ* should belong to one order.

"It is often difficult, and not always necessary, to ascertain exactly whether the priority of invasion belongs to the general Fever, or to the visceral affection. Some Fevers commence with symptoms of sanguineous plethora or congestion in the head ; some with a deranged condition of the stomach, and especially of its mucous membrane and glands, and of the continuation of said membrane to the fauces and tongue. The stomach seldom fails to sympathize strongly with the head, when the latter suffers from severe fixed *Cephalœa*, caused by vascular turgescence or inflammation.

"Some Fevers begin with, or are from the commencement attended by, either subinflammation or complete inflammation of a part or the entire of the thoracic viscera ; others with inflammation of the liver or bowels, or of some other part in the abdomen ; others again with rheumatism. Whether the complications be simultaneous with or secondary or anterior to the general Fever, the ratio medendi is nearly or entirely the same. It is, however, quite essential in practice to ascertain as well as possible

the organ or organs principally diseased ; as by the early employment of the most appropriate means for cure thereof, we shall be the better enabled to preserve our patient's lives, and abridge the duration of their Fevers."

Our author considers all the divisions of fevers in our classic medical works, on which so much Greek and Latin has been expended in christening them by desperate long and hard names, "as mere varieties of one genus—that is, of the above-described general sub-inflammatory condition, constituting fever." These varieties, he thinks, are produced by diet, occupation, locality, temperament, habit of body, state of mind, and many other accidental circumstances, together with climate, season, treatment—and epidemic influence.

"The above view of Fever, which in my mind is that of nature, removes that obscurity and confusion which long prevailed, and in some places still exists in the management of Fever. Though comprehensive, it does not confound any diseases which are naturally separate. It admits and requires the utmost attention in distinguishing the varieties and successive changes of Fever, and in discriminating the character of each disordered viscus. It indicates a rational, clear, effective, and tolerably uniform line of practice in the treatment of Fevers, and their manifold complications—a practice which the best modern physicians are for these many years back gradually adopting, as if it were by common consent.

"This practice consists mainly in the Antiphlogistic plan of treatment, modified and varied according to circumstances, and especially according to the character, grade, and period of the Fever, its complications, and the patient's pulse and strength.

"Bilious and hepatic symptoms are to be subdued by well known appropriate remedies. These are remedies which, so far from being opposed to, are for the greater part in unison with the fore-mentioned Antiphlogistic plan. This plan, based, it is presumed, on sound principles, is extensive and varied in its application. It admits of the

mildest practice in mild cases, as well as of the most active and efficient treatment in severe cases. It is suitable not only to the diseases above-mentioned, but it is also applicable to the exanthemata or eruptive fevers, which require to be treated pretty much on the same principle with common Fever and its modifications: but in the exanthemata we must be cautious to prevent the disappearance of the eruption before the proper period; and we must be ready to obviate or remedy visceral determinations.

"In the characteristic sketch of common Fever, above drawn, in page 10, it has not been my object to trace its phenomena on regularly to its decline and termination. But I may here add that whatever may be its appearance in the beginning, and by whatsoever title it might be denominated by Nosologists, whether by that of Synocha, Synchus, or Typhus; in its advanced state it becomes occasionally marked by adynamic spasmodic nervous symptoms, with a black or blackish tongue, and a very peculiar alteration of countenance; symptoms which supervened on or take place of the acute sub-inflammatory or inflammatory stages. Under these circumstances other indications arise, which call forth the application of the whole medical mind. The Methodus Antiphlogistica, is to be employed not only in a very mitigated manner, but it must be combined with, and often superseded by antispasmodic, antinervous, diffusively stimulating, and tonic remedies. As in the class of tonic medicines, cinchona holds a prominent station, I think it right to observe that this article is scarcely ever useful, and is often injurious in continued Fever during the existence of a hot skin, a quick pulse, and a loaded tongue; cases of gangrene excepted, where indeed the temperature is in general any thing but high, and where cinchona, aided by camphorated mixture, good wine, and a suitable position of the body, is an extremely valuable curative agent. I have already noticed the great efficacy of this bark in Erysipelas, after the previous subtraction of some blood from the arm."

Agues have not been very frequent or troublesome in Dublin. The following quotation contains a rather curious opinion.

"I formerly had an opportunity of witnessing multitudes of Agues of all types in the great hospitals La Salpetriere, and L'Hôtel Dieu in Paris. I was a pupil in the latter establishment on the return from Walcheren of the French and some Polish sick soldiers; many of whom were as violently afflicted with the Walcheren intermittents as our troops who succeeded them in that unhealthy island soon afterwards were. The result of my experience is a conviction that Ague is a nervous and spasmodic malady of a very peculiar nature, and that its place in nosological tables belongs to the class of Neuroses and the order of Spasmi. The involuntary, unrestrainable, and extraordinary shaking of the whole frame; the sort of spasmodic closing of each hand, and drawing in and upwards of the arms and lower extremities, and their alternate stretchings; the particular inward sensation in the region of the epigastric ganglions and plexuses during the rigor of the intermittent fit: the flushed countenance, the cephalœa, the heaviness, drowsiness, and sometimes stupor and even apoplectic sopor and stertor at the close of the paroxysm; the occasional influence of emotions of the mind in producing or stopping intermittent paroxysms; the periodical visitations of Ague, the general freedom from complaint in the intervals; the liability of the disease to frequent returns after its cure; its long continuance not only for months, but, in some instances, for a great number of years, such as from four to seven, and even so far as twenty-six years, or during life, of which my clinical case books contain detailed histories:—These symptoms and circumstances seem to me to denote a very obvious analogy between Ague and other convulsive maladies, especially Epilepsia and Hysteria; an analogy rendered still closer by the notable similarity or sameness of the tonic and antispasmodic remedies prescribed in the first and latter affections. Due attention to this analogy may perhaps, ere long, lead physicians to the discovery of either a permanent cure, or a meliorated treatment for Epilepsy."

Of the reality of febrile contagion our author is firmly convinced.

"It is well known to all physicians who attentively mark the frequent instances there are of many of the poor becoming sick successively in the same house and in one room. If, out of five or six members of a badly-lodged and ill-clad indigent family, necessitated to sleep together, one be seized with Fever, the person who lies closest to him and faces him, will receive and inhale his heated, irritating, and morbid breath, and imbibe his perspirable matter, and will sicken. The remainder of the family will in like manner become successively diseased. Should one of these individuals, who may happen to be, unknowingly, in the commencement of Fever, quit the sick-room, visit relatives or friends elsewhere, and sleep with them, his fever will soon develop itself, and be communicated to his new bed-fellows. To this manifest source of contagion may be added the circumstance of the frequent migrations from one wretched lodging to another, of indigent families, who not unfrequently carry sickness in their train, or meet with it in their new places of abode."

XVII.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

MUSCÆ VOLITANTES.

Mr. Guthrie said *muscæ volitantes* were of two kinds; one, unaccompanied by defective vision, the other attended by very impaired sight. The first kind were very common. The patient complains "of a variety of appearances moving before the eye, such as small threads or filaments, assuming the form of worms, zigzags, or spots of greater or less dimensions, but generally small; little globules or webs, or luminous spots sometimes surrounded by a halo, which always move before the eye, and are never fixed.

"These are most readily seen on raising the eye quickly from the ground towards the sky, when they appear to ascend whilst the eye is in motion, and to descend on its

becoming fixed steadily upwards, as if they had been disturbed from, and were returning to their original situation below the axis of vision. Of the different kinds of *muscæ volitantes*, the filamentous particles, turning and twisting in various directions, are the most common; two or three of which are generally more conspicuous than the rest, although accompanied by an infinity of others less distinguishable, intermingled with small globules, which fall like a fine mist when the eye has been gently raised and fixed on a white wall, or on the sky on a clear day. The filamentous particles, being apparently the lightest, descend the last, assuming the appearance of twisted semi-transparent tubes, or worms, spotted in different places.

"In the evening, or by candle-light, these spots are scarcely to be observed; they are not very perceptible in a room which is rather dark; are but imperfectly seen when looking at the flame of a candle, and but feebly marked when the eyes are raised to the sky, with the lids shut, on a fine clear day. They appear much more brilliant on a clear or bright day, when the lids are half closed; they are also very distinct on a misty day, or when attention is paid to them in light reflected from water or snow. These spots always appear to sink below the axis of vision by their own weight, when the eye is simply turned upwards; and this opinion seems to obtain great support from their falling and collecting, as it were, into a focus in the axis of vision, when this point is made the most dependent by bending the head forward and looking on a white sandy soil. In this way the patient can readily examine them; or by lying down in the open air and looking at the sky, with the head and eyes turned back, they will be found to ascend and lodge themselves in what is the upper, but, in that position, the most dependent part of the eye. The principal diagnostic mark of these appearances is their mobility, which distinguishes them in a very decided manner from the fixed spots often perceived in the eye, and which depend on opacity of the lens, or a defective state of the retina.

"*Muscae volitantes* are incurable; seldom pass a certain point; and when the patient is assured of their not proceeding further, appear to be lost sight of, and to give no inconvenience, unless when the attention is directed to them.—they are very rarely followed by cataract or amaurosis, and it is a great consolation to the patient to be assured that they are not dangerous."

Of the second kind Mr. Guthrie said, a well marked case had been related in the March Number of the *Medico-Chirurgical Review*, as extracted from the *Revue Médicale*. "The patient complained of defective sight, and on examining the eye a number of small bodies were perceived floating about in the posterior chamber of the eye, glittering with a kind of phosphoric brilliancy." He had seen two cases of the kind; one of a poor man at the hospital, some years ago, who came but once. The sight was very defective, and on dilating the pupil with the belladonna, a number of shining spots were seen floating about, as the eye moved, evidently deeply seated in the vitreous humour, yet connected with each other. The second case is that of a distinguished General Officer, in whose right eye for three years past, a similar appearance was observable, until the last few months when cataract supervened. He has had very defective sight with that eye for years, so as only to be able to distinguish a person without ascertaining his features at the usual distance at which he distinctly recognized him with the other. On dilating the pupil, a fine membrane or web was seen floating deep in the posterior part of the eye, rising or falling with its motion. The whole of the web could be distinguished, looking like a fine veil, spotted in places with shining spots, and which did not alter their appearance in whatever light they were examined. In describing them to the patient, Mr. Guthrie said he had compared them to the stars in the American flag, when floating in the wind. The supervention of cataract has prevented their being seen, whilst it distinctly marks their situation, and has induced him to form an unfavourable prognosis, indeed to decline recommending an operation on

that eye. The patient, however, Mr. Guthrie said, had received a more favourable opinion on this point, and if he submitted to an operation, as he was recommended to do, he would not fail to make known the result, in order that a correct opinion might be formed in these cases for the future. The distinction between the two kinds of disease, he considered to be that in the first, the liquor Morgagni was its seat. In the second, the hyaloid membrane lining the septa of the vitreous humour was detached and floating in it.

XVIII.

ST. GEORGE'S HOSPITAL.

I. CASES IN WHICH THE BLOOD WAS FOUND AFTER DEATH PRETERNATURALLY FLUID.

The life or death, the innocence or guilt of a fellow creature, having recently been made, we might almost say, to hinge on the fluid condition of the blood after death in the body of Mr. Neale, we gladly seize on the opportunity offered us, of showing how fallacious a criterion of violence inflicted this particular condition of the blood must be, by the mention of cases that occurred at St. George's Hospital, in which it was present in a more or less marked degree. This fluid state of the blood is really far from unfrequent in post-mortem examinations, and doubtless were it oftener looked for, it would oftener be found than even at present it is. There are certain diseases, in which on the whole, it is noticed with more regularity and constancy than in others, and of these we think that phlebitis may be ranked as the head and front. We know that many cases of fatal inflammation of the veins are on record where no such condition of the blood is alluded to, and consequently where in all probability it did not exist.—These, however, are the exceptions rather than the rule, and we must confess that, in the cases we ourselves have been fortunate or unfortunate enough to witness, the phenomenon in question was almost invariably present. The following, which

occurred upwards of a year ago, was a very well marked instance of the fact.

CASE 1. *Inflammation of the Cutaneous Veins of the Leg and Thigh—Death—Non-coagulation of the blood.*

A butler, 56 years of age, was admitted into Hospital October 23d, 1827, under the care of Mr. Brodie, with varices of the veins of the right leg and foot, and a small varicose ulcer above the internal malleolus. Under the use of poultice and soap-strappings, &c. he went on tolerably well, till the morning of the 15th of November, when he had a sharp rigor, followed during the day by general malaise, and pain in the course of the veins during the night. On the 16th the thigh was found to be swollen, and the veins evidently inflamed. The swelling of the limb, and inflammation of the vein increased, delirium and rapid prostration succeeded, mortification, or rather gangrene, was established in the limb, and at, 2 p. m. of the 17th, the patient died.

On dissection, the coats of the inflamed vein were a good deal thickened, its cavity filled with loose, broken down coagulum, and its inner membrane of a dark red colour. This staining of the internal coat was traced along the great venous trunks to the heart, which was soft and flabby in its texture, and *distended with dark fluid blood*, having only one or two very trifling portions of coagulum mixed with it. The aorta, and indeed the arterial system generally, was highly coloured, not in patches, but one uniform and vivid red, not extending, however, beyond the inner coat. The blood throughout the body was uncoagulated, and the veins upon the surface could be traced by their purple colour, almost as distinctly as if they had been injected. The staining of the inner coat of the aorta was so marked, that the vessel was removed from the body on that account, and is or was in Mr. Brodie's Museum at the School of Great Windmill Street.

Traumatic gangrene, and likewise, we suppose, the other varieties of gangrene not traumatic, frequently present this appearance of the circulating fluid.

CASE 2. *Compound Fracture of the Right Leg—Sloughing of the Limb—Amputation—Death—Staining of the Femoral Vessels.*

James Scarlett, ætatis 57, was admitted December 1st, under the care of Mr. Brodie, in consequence of a compound fracture of both bones of the right leg about three inches above the malleolus, received by falling from a scaffold, 20 feet high, in the works going on at Apsley House.—He went on tolerably well till the evening of the next day, when he became anxious and low, and during that night was delirious. On the 3d, complete sloughing of the subcutaneous cellular membrane, with commencing death of the integuments had taken place from the instep to the knee. The system, as might be expected under such circumstances, was extremely depressed, and seeing that if nothing were done the man must inevitably die. Mr. Brodie removed the limb, some three or four inches above the knee. He slept for an hour after the operation, and appeared somewhat better in the evening, but the calm was delusive—he became affected with delirium and vomiting in the night—the symptoms of sinking soon became established—and after lingering till the 6th, he died on that day at 2 p. m.

Dissection. Passing over some particulars foreign to our present purpose, we may observe that on cutting down to the femoral vessels in the groin, and following them on from that to the face of the stump they presented no unusual appearance from without. On being removed from the limb and laid open, both artery and vein were found to be more or less filled with dark and semi-fluid blood, and both presented on their internal coats, a deep and nearly a blood-red dye. This was very far from the *injected* appearance caused by inflammation, but evidently a *staining* merely of the coats in contact with the semi-fluid blood. The lining membrane of the heart, especially the right chambers, of the venæ cavæ, and even of the aorta, was more or less tinged by the blood, which in all was fluid, or nearly so.

We could give some further instances

of this unnaturally fluid condition of the blood in phlebitis, gangrene, and some of those cases of purulent depôts, so often met with in hospital practice. However, it would be tedious to ourselves and to our readers to multiply examples of the fact; suffice it to say that such it is. The case we are next to describe was of a different character from any of the preceding, and has already been noticed, with another view, in our pages.

CASE 3. Removal of part of a thickened Prepuce—Insidious and fatal Pneumonia—Fluid State of the Blood.

A young man, of four or five and twenty years of age, was admitted under the care of Mr. Keate, on the 19th of February last, with the prepuce much thickened after paraphimosis. The thickened part was removed by Mr. K. on the 20th, and on the 22d the patient was observed to be nervous and irritable to an extraordinary degree. On the 23d, he was in a state of great depression, with hurried breathing, but no cough, and perfect power of taking a full inspiration. At twelve o'clock next day he died.

Dissection. On raising the sternum, the veins passing to the right side of the heart were gorged with black and fluid blood. The right chambers of the heart were also gorged with fluid blood, and the left were much more filled with the same than they usually are; so much indeed was this the case, that it became a matter of remark and dispute on its cause in the dead-house. On removing the calvarium, the veins of the dura and pia mater were turgid, and filled with more or less fluid blood, whilst the section of the brain displayed numerous and large black points, evidently the dark venous blood contained in its vessels. The lungs we may mention were violently inflamed, the pleuræ too inflamed, but in a less degree.

On the 2d or 3d of the present April, a female patient of Dr. Seymour's who had laboured for some years under Winter cough, and died, we believe, with some symptoms of thoracic inflammation, was examined in the hospital dead-house, and found to present the fluidity of the blood to a very great degree. The gentleman, Mr.

Good, who conducted the examination, informed us that scarcely a portion of coagulum could be found in the heart or veins, for he opened many in the body. The mitral valve in this subject was affected with partial ossification, and the lining membrane of the bronchi was much inflamed. Still more lately a corpse presented this phenomenon, conjoined with ulcerations of the mucous membrane of the intestines, near the junction of the ileum and cæcum.

We think that the cases here brought forward would suffice of themselves to shake the faith of any unprejudiced man, in the value of the fluidity of the blood as a test of this or that state of system prior to the fatal event, and especially as a medico-legal test of violence inflicted. It may, and no doubt it very commonly is, a concomitant or consequence of sudden death, but it certainly is also found when the death is slow and produced by ordinary causes, in the ordinary way. The why and the wherefore we do not understand, most probably we never shall; but the fact is as certain as that two and two make four, and sorry we should be to fling it in the balance against a prisoner, when Justice is weighing his guilt or innocence.

II. CURIOUS MORBID CONDITION OF THE ARACHNOID MEMBRANE OF THE BRAIN.

There is an appearance presented by the arachnoid membrane, which is not unfrequently met with in post mortem investigation, which looks very like the effects of disease, and is often, no doubt, considered as such, but which, we are strongly inclined to suspect, is not of the nature it would seem to be. The first case in which we particularly observed it, was that of the young man who died of peripneumony after the removal of part of his prepuce, already more than once referred to. The patient in question had, by all accounts, been healthy, had never presented any "head symptoms," as far as we know or could learn, and died of inflammation in a distant organ—the tissue of the lungs. The second case that fell under our notice, was that of a diabetic, under the care of Dr. Hewett, who died, we

believe, (for we did not see him during life,) with some curious symptoms after, or rather during the exhibition of opium. Perhaps the details of this dissection may not be uninteresting, and, at all events, will serve to explain the particular lesion, if such it can be called, of the arachnoid tunic.

The body was that of a man beyond the middle term of life, not so very much attenuated, but generally bloodless. The lungs were as healthy as lungs could be; the heart was extremely flabby, the right ventricle being scarcely thicker in its walls than paste-board, and the left proportionably weak. The kidneys were pale in colour, and were said to present in some parts points of ecchymosis, though we cannot say that we saw them ourselves.

The tunica arachnoides had put on a peculiar semi-opaque appearance, easily recognized when once seen, but difficult to describe. It seemed rather to depend on a slight fluid effusion between the arachnoid and pia mater, than on any actual structural alteration of either membrane. It was generally over the upper surface of the brain, but scarcely if at all perceived at the basis, which is not the case as far as we have seen, in true inflammation of the cerebral meninges. At one or two points, between the clefts of the convolutions, the opacity was decided, and appeared to depend upon solid lymph, which, however, on making the section of the part, was not the case. One or two slices of the upper surface of the hemispheres had been put aside, to preserve, or to attempt to preserve, the appearance, but, on looking at them shortly afterwards, it had almost entirely vanished, evidently from the fluid having escaped where the sections had been made.

Another very well-marked instance of this condition was afforded by a patient of Dr. Seymour's who had laboured long, and, in fact, died from, the effects of the emanations of lead. The patient had epileptic fits. Still more recently, we have seen it in the body of a woman who died with jaundice and hemiplegia. Here, again, the dissection was one of some interest, and therefore, we shall give it at large.

The body, externally, was very yellow, of course. The conjunctivæ were deeply tinged, and the clear part of the eye had also a light shade of yellow; but, whether that depended on the colouring of the conjunctival prolongation over the cornea, the cornea itself, or the aqueous humour, is really more than we can venture to say. Nothing unusual was discovered in the chest. On opening the abdomen, the duodenum, biliary ducts, and liver were removed, but no mechanical obstruction to the flow of the bile could be found. The bile itself was of a darkish olive-green, and slightly viscid. The liver was unhealthy, and, towards the back part of its right lobe, was an abscess in its parenchyma. The spleen, both externally and internally, was most unequivocally tinged. One or more round concretions, the size of small peas, were found in the spermatic veins.

The pericranium and bones of the skull were remarkably yellow, and the former very easily separable from the latter. The mucus in the frontal sinus was discoloured. A kind of fibrous appearance was noticed on the dura mater, and the arachnoid membrane presented the same appearance described, an appearance depending in this, as in them, more on a fluid effusion beneath the membrane, than any alteration of its own texture. One remarkable difference between this and the preceding instances was, that, instead of being white, the opacity was yellow, in accordance with the general discoloration of the body. On cutting off a portion of the brain and setting it aside, this opacity passed away in some degree. The cortical part of the brain had, we thought, a slight tinge, but the tint, if such it was, of the medullary portion, was still less decisive. There were three or four drachms of yellow serum in the ventricles. In one of the hemispheres of the cerebellum, (on the side opposite to that which had been palsied) was a kind of sloughy cavity, containing, not pus, but the matter of the cerebellum, in a state of ramollissement, one might almost say putridity. This disorganization was pretty extensive.

We have deemed it right to describe

this condition of the arachnoid membrane, and detail the cases in which we have observed it, because we consider the subject one of interest. What the cause of this effusion beneath the membrane may be, we leave to those who like to explain. Is it to be considered as the evidence of old and chronic inflammation? For our own parts, we think not; though we readily allow, that the few cases in which we have remarked it are far, very far, indeed, from settling the question one way or the other. It may easily be objected to the non-inflamma-

tory view of the phenomenon, that, in three of the cases out of the four, there was either mischief going on in the head, or disordered action set up in it. The diabetic died under the influence of opium, we do not say of it; the painter had suffered from epilepsy; and the jaundiced patient had hemiplegia, and unequivocal disorganization in the cerebellum. Upon the whole, then, we must leave the point undecided, and open to further observation, which, in our opinion, it really deserves.

MEDICAL JURISPRUDENCE.

XIX.

PLAN FOR THE AMELIORATION OF THE MEDICAL PROFESSION, &c. By ALEXI-PHARMACUS.*

In the little anonymous pamphlet which lies before us, there are many just observations on the evils existing in the profession—and several plans of amelioration proposed. We have, on many occasions, adverted to the evils; but now begin to despair of any remedy. The wild REFORMERS have armed their adversaries with impregnable weapons, for some years to come, but still, we should not let these important matters be forgotten. The system of apprenticeship—the licensing of general practitioners by the Apothecaries' Company—and the mode of remuneration, are the three great grievances which call for reformation. And first, in respect to the "HALL."

"In order, then, to remedy, as nearly as possible, the inconveniences which appertain to this department of the Profession, and which have produced such loud and just complaints, it appears both reasonable and proper that the Society of Apothecaries should resign to the Royal College of Physicians, the task of examining candidates for Licences to practice the Art of Medicine, provided that body would be willing to take upon them the care and responsibility thereof: or, that they petition the Legislature to

enable them to alter their existing charter, whereby they are constituted a trading body, and give them such other powers as in its wisdom shall seem meet and suitable to the improved condition of society, and as shall take from them altogether the character of a trading or mercantile body.*

"That they, also, continue to exercise the Science of Practical Chemistry, in the Laboratory belonging to their Hall, and to make such compounds and preparations as are permitted, or commanded to be prepared by Apothecaries, in the Pharmacopœia of the Royal College of Physicians. That, instead of making sale and profit, by wholesale or retail, upon the compounds so prepared, these be disposed of at cost price to such Practitioners as have obtained licences, and who may be disposed to take the same off their hands.—They may, also, do much good, by presenting an assortment to such meritorious students as pass through their examinations with credit, and have but small

* "The Company of Apothecaries are not likely to exert themselves for the general interest of their licentiates, or the public, while they find an exclusive interest in their trade; the which, so long as it is carried on for profit and emolument, ought certainly to separate them from all participation in the practice of Physic, since it tends to identify them with Druggists."

* Octavo, pp. 17, price 1s. 1829.

means of commencing their professional career; or otherwise dispose of them to public charities, as they think proper.

"That they should at all times, nevertheless, retain in their possession sufficient for the supply of His Majesty's army and fleet, in case of emergency; with such an assortment of simples, as are necessary to the forming a perfect collection of specimens of the *Materia Medica*, for the inspection of students, whereby those who have not other opportunities, may at all times gain a knowledge of the form, appearance, and sensible properties, of all substances proper to be used in the *cure* of diseases."

Whatever reason there may be in the first part of the foregoing extract, respecting the transference of the examinations from Apothecaries' Hall to the College of Physicians, we cannot imagine how Alexipharmacus could propose such a wild and unjust scheme as that of robbing a Company of its unquestionable right to "sale and profit" of its goods! Does not the author see what an injustice this would be to other chemical laboratories—for who would go to them, when they could get medicines at the Hall for "cost price?" The author's mind does not appear to be quite made up respecting apprenticeships. He thinks the license should be open (and we agree with him) to all who can stand a proper examination, whether they have been previously apprenticed or not.

"And, provided the means I propose for reducing the quantum of material consumed in the pretice of physic to its minimum, shall be brought into operation, there will be less reason to regret the shortening of the term of apprenticeship, or its total abolition; as one reason for so pertinaciously insisting thereon, will then be removed, viz. that which occasions the anxiety of some Apothecaries to secure a good living automaton in their shops, for the period of five or seven years; not but that many good reasons might be adduced for continuing a judicious restraint on the liberties of youth, during the few first years of their initiation into a Profession involving such a high degree of moral respon-

sibility. It is desirable, moreover, in order to discipline the mind to habits of accuracy, business, and study.

"It is the abuse of this otherwise most valuable portion of a student's life, which might be called the seed-time of the mind, that has led to so much just complaint against the principle of apprenticeships in a liberal profession."

After descanting on the evils of remuneration by charges on medicines, the author next proposes his formula for the remedy.

"The most proper principles on which to regulate the remuneration of general Practitioners, appear to be the following:—

"First, for the poorest classes of the community (not within the reach of public Institutions, without risk of an aggravation rather than a relief of their suffering,) and that class whose native modesty and decent pride often occasion them much distress, and who are most particularly worthy of encouragement;—a system of economy, somewhat on the same principle as public Institutions, Clubs, or Benefit Societies, supply necessary medical attendance and medicines.

"That which is necessary may be supplied in the simplest form, (on an average calculation for one guinea per annum for each person, in sickness or in health, taking the year one time with another, and attendance within certain limits. To every father of such a family, I would give authority to sign a transferable order, to be in force for a year, on receiving in advance the above sum; and to individuals whose necessities do not permit them to do this, attendance should be granted, on receipt of one shilling per week, or an assurance in writing from a responsible friend or neighbour, for the due payment; but though I think it right to mention this, it is not necessary to insist on it, as any person having paid for an order, could transfer the same to such poor neighbours,—the Practitioner to inform the lender, as soon as the patient no longer needs it. To prevent all unnecessary delay and inconvenience, which would result in seeking and obtaining the order, a *first* application always to be at-

tended to *without* it; at the second visit to bring one; or if any difficulty remains, the Practitioner to supply the name of some person on whom the patient may call.

"And thus I would recommend to all Medical Practitioners to consider the condition of their poorest neighbours, and keep records of all that happens to them. These means, pursued systematically, would present no difficulty to any well-informed Student, at the commencement of his practice.

"The additional time and labour thus bestowed, to be compensated for, as shall hereafter be pointed out. The General Practitioner, in this more extended application of the term, would have no pretext for neglecting his poorer, for his richer neighbours. It will be remarked, that no *unnecessary* time, labour, or expense is required of him. He should be the Physician of the poor as well as the rich. There is no need of empirical displays of presumed superior talent, or for wire-drawn reasonings, in order for a medical man to do his straight-forward duty to every sick person who applies to him.

"All this may be effected, without in any degree wounding the feelings of the really deserving and necessitous, almost without their knowledge, as all that can be required of them, is to attend to the appointments made with them, and the prescription and advice of their Medical friend.

"To persons a degree superior, whose condition, though not affluent, is such as to set them above an application for gratuitous Medical attendance; and who may be supposed to possess a laudable pride of independence, in paying for all things to the utmost of their means;—the mode that occurs to me, as likely to be agreeable to all parties, is by graduated fees for each necessary visit or consultation, from 2s. 6d. upwards, as far as 10s. according to the circumstances, and more in no case to be demanded; necessary medicines to be supplied without any additional charge, except in cases of very expensive medicines prescribed by a Physician, or with the consent of the patient, when found to exceed the amount of the fee agreed on: the mini-

mum being fixed at 2s. 6d. prompt payment in all cases.

"This scheme, if examined in all its bearings, in connection with other projects for the amelioration of the condition of the poor, will be found to bring home to every man's door, in the true spirit of benevolence, that which his necessities require."

Although we believe that some measure analogous to the above must ultimately be adopted by the general practitioners, yet Alexipharucus does not appear to know the difficulties, nearly insurmountable, which must attend the measure. While the office of prescribing and that of dispensing continue united in the same person, discontent will be experienced from the multitude. If much medicine be sent, and no charge made for attendance, then the patient will grumble at the quantity which he is obliged to swallow:—if, on the other hand, little medicine be ordered, and visits charged, the observation will be, "Oh, the medicines are economised, and the visits are spun out, for obvious reasons!" Nothing but a complete separation of prescription from pharmacy, can free the practitioner from irksome office and ungenerous suspicion. But then what a sacrifice must be made! the whole profits of the dispensing branch will be thrown into the hands of the chemists, who will become what the apothecaries were 30 or 40 years ago. Besides, unless pharmacy were actually prohibited by law, (which would be a very severe enactment,) a considerable proportion of general practitioners would always be found, who would unite the prescription of medicines with the preparation of them, and thus secure the monopoly of the lower classes of society.

The author of this pamphlet has spoken in the most handsome, not to say eulogistic, manner of physicians.

"The admiration and respect due to Physicians as a class of gentlemen, and scholars, associated for the advancement of the science of Medicine, and for the benefit of the human race, cannot be mentioned in terms sufficiently expressive. In this class is concentrated a galaxy of learning and skill; and from their influence alone is any

great improvement of the Science to be expected.

"The education expected to be acquired by them is far too expensive for a sufficient number to meet the wants of the community.

"The Physician, by his good fortune, education, and habits of study, becomes acquainted with the learning, theory, and practice of ancient and modern times, relating to diseases ; and by his observations on the living and the dead, in his diurnal avocations, informs himself fully of their nature. He also studies extensively the remedial agents found abundantly spread throughout the world by the wise and beneficent Creator, in the animal, vegetable, and mineral kingdoms, and abstracts from them certain qualities, which, by his own experience and that of others, he finds capable of producing all the various effects that can be desired or expected from them, consistent with the immutable laws to which the human frame is subject.

"All this may be effected by a person blessed with the means and opportunity of a life of exemption from inferior pursuits, spent in this way. But this is the lot of comparatively few ; far too few for the demands of general society, whose wants are so great and means too much limited, to command the regular attendance of a Practitioner so well educated."

After such a panegyric, which, we confess, is rather more courteous than strictly true, we were not a little surprised to find that Alexipharucus was not merely an expeller of physic, but of physicians ! The portrait which he has drawn above is fit only to hang over mantle-pieces, or in the halls of colleges. It is too ideal for real life. The physician is to leave the drudgery of practice to the general practitioner, and is to be set apart, as a kind of abstract being, denominated a "GUARDIAN OF THE PUBLIC HEALTH!"

"It is desirable to diminish the sum of human suffering, consequently the occasions for practice ; and it is not difficult to contemplate such an improved state of society, as may nearly supersede the active duties of

Physicians, and place them merely in the light of *guardians* of the public health.

"The physician thus exalted, and set apart from his more humble and active colleague, is not, however, the less useful member of society. The term seems to convey an assurance of the possession of every requisite for the fulfilment of the duties of their enviable and honourable station. The activity of their well stored minds will always stimulate them to works of the highest importance and utility in their profession ; but it is to be lamented, that the fruit of their labours cannot be brought within the reach of every one, on account of the expense attending them ; besides this singular and unfortunate consequence, that the more useful they are in themselves, the less likely are they to be universally adopted ; and even when resorted to, to be appreciated by the persons most benefited ; and, moreover, the general Practitioner, having the charge of his own interests, is oftentimes unwilling to adopt expensive and highly useful medicines, as upon medicines only can he remunerate himself ; the interest of the Practitioner being opposed to good practice.

"Though it is true, the adoption of the system of fees would not immediately remove this evil ; and a person so disposed, would, (if one may imagine a man so very blind to his real interests,) still have power to protract a case ; yet the general purification of the profession, which it will be seen, on a review of the whole plan, must result in process of time, will remove every temptation or motive to mal-practice, if such could for a moment be supposed to operate or exist in the mind of any well-educated man."

There are several passages in the above extract which we do not pretend to understand ; but we suspect that there are not a great number of physicians in this metropolis, or, indeed, in these isles, who are over-anxious to be "thus exalted and set apart from their more humble and active colleagues." But our limits are exceeded, and those who are curious to know the various speculations and proposals of Alexipharucus must consult the original.

XX.

ON THE MORAL AND PHYSICAL CHARACTER (CEREBRAL DEVELOPMENT) OF BURK.

In the last number of the Phrenological Journal, there is a very able and interesting article on the above subject. We do not pretend to any intimate knowledge of phrenology—not indeed having sufficient leisure for the study; but we conceive ourselves competent to form an opinion as to the truth or falsehood of the main principle on which it rests, as a science. We believe that the controversy between the phrenologists and anti-phrenologists might be narrowed at once to the discussion of a single question. It is now, we should conceive, generally admitted, that our passions, propensities, dispositions are born with us, however some of them may become more developed than others as we grow up, and as chance or tuition may call them into activity. Now, the question is this:—in what part of man are these passions or propensities located? Are they connected with material organs—or were they implanted in the mind, the soul, the divine particular, when it was first infused into the primary rudiment of our material fabric? It is said that the doctrine which assigns material organs or parts to the passions or propensities, is an immoral one; for why should we be responsible for the operation of these propensities, when their seats or causes form a part of our bodies? But we apprehend that the same argument will turn very strongly indeed against the opposite party and doctrine. The existence of good and evil propensities is acknowledged; and if they are implanted or located in the immortal soul by the hand of our Creator, we are surely as little accountable for their operations as if they were connected or seated in our corporeal structure. At one time it was treason to say that insanity was a *corporeal* malady; and yet it is now almost unanimously considered as dependent on derangement of body. If, then, we see inflammation, or

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other disease of the brain, alter, confuse, augment, or diminish various passions, propensities, and intellectual faculties, is it not reasonable to suppose that these passions, &c. are connected with, and manifested through certain material structures, whether we are able to ascertain these localizations or not?

We imagine that our morality or immorality—our responsibility or irresponsibility, is not affected, after all, by the location of our passions in either body or mind. Good and bad passions—good and bad organs, come into the world with us, and we should suppose that our responsibility will hinge on our endeavours to make the good preponderate over the evil portions of our nature. This, we believe, is the doctrine of phrenology as well as of religion. Even the poet has laid it down in two expressive lines:—

“Two principles in human nature reign,
“Passion to urge, and reason to restrain.”

Let us hear what the learned and pious Dr. Blair says:—

“The seeds of various qualities, good and bad, lie in all our hearts; but until proper occasions ripen and bring them forward, they lie there inactive and dead. They are covered up and concealed within the recesses of our nature; or, if they spring up at all, it is under such an appearance as is frequently mistaken, even by ourselves. Pride, for instance, in certain situations, has no opportunity of displaying itself, but as magnanimity, or sense of honour. Avarice appears as necessary and laudable economy. What in one station of life would discover itself to be cowardice and baseness of mind, passes in another for prudent circumspection. What in the fulness of power would prove to be cruelty and oppression, is reputed, in a subordinate rank, no more than the exercise of proper discipline. For a while the man is known neither by the world nor by himself to be what he truly is. But bring him into a new situation of life, which accords with his predominant dispositions, which strikes on certain latent qualities of his soul, and awakens them into action; and as the leaves of a flower gradually unfold to the

sun, so shall all his true character open full to view.

"This may in one light be accounted not so much an alteration of character produced by a change of circumstances as a discovery brought forth of the *real character*, which formerly lay concealed. Yet, at the same time, it is true that the man himself undergoes a change. For the opportunity being given for certain dispositions, which had been dormant, to exert themselves without restraint, they of course gather strength. By means of the ascendancy which they gain, other parts of the temper are borne down, and thus an alteration is made in the whole structure and system of the soul." *12th Sermon.*

Now what are these "seeds of various qualities, good and bad" which "lie in all our hearts?" Do they lie in the immortal soul—or in the mortal body? And what can Dr. Blair mean by "an alteration made in the whole *structure* and system of the soul?" He appears to shadow out the modern doctrine of phrenology—for we cannot imagine that Dr. Blair could suppose that "the *structure* of the soul" was capable of alteration merely by the "opportunity being given for certain dispositions to exert themselves without restraint." Even if we admit that the passions and propensities came with the immortal soul into the material fabric, still we must strenuously maintain that *their* manifestations, like the manifestations of the soul itself, are entirely through the medium of corporeal organs—which is all that the phrenologists contend for. But while we make this admission of the fundamental principle of phrenology, and that upon the most deliberate reflection, we are not at all convinced that the phrenologists have proceeded with sufficient caution or prudence in their localization of the organs through which these passions and propensities are manifested. If we are yet unable, after two thousand years of observation and reasoning, to ascertain the nature and seat of the most common corporeal diseases, is it likely that, in 24 years, we should be able to ascertain those portions of brain which are destined for the different faculties of the mind? With every friendly disposition to phrenology, we have grieved to see the precocious attempts at perfecting a system

which we believe to be incapable of perfection. Nosology is surely subordinate to phrenology; and yet the greatest minds that the world has produced have utterly failed in giving it even the semblance of a science! Let not this discourage the phrenologist—let it incite him to industry—but let it teach him meekness—and, above all, let it render him distrustful of deductions hastily drawn in a science so new and so difficult as that of phrenology!

But, to the subject of this paper. The horrors of mind which have been created by the late atrocious murders in Edinburgh, must naturally inspire great curiosity as to the moral and physical characters of the criminals. We shall first lay before our readers a phrenological description of the cerebral organs of Burk. The measurements and developments are as follow:—omitting most of the organs unimportant as to the present subject.

MEASUREMENTS.

	Inches.
"Spine to Individuality . . .	8
Concentrativeness to Comparison, . .	7½
Ear to Occipital Spine, . . .	4½
— to Individuality . . .	5½
— to Firmness . . .	5½
Destructiveness to Destructiveness, .	6½
Secretiveness to Secretiveness, . .	6½
Ideality to Ideality . . .	4½
Constructiveness to Constructiveness, .	5½
Cautiousness to Cautiousness . . .	5½

DEVELOPMENT.

1. Amativeness, large.
2. Philoprogenitiveness, r. large.
3. Concentrativeness, rather full.
4. Adhesiveness, full.
5. Combativeness, full.
6. Destructiveness, very large.
7. Constructiveness, full.
8. Acquisitiveness, rather large.
9. Secretiveness, very large.
10. Self-esteem, very large.
11. Love of Approbation, full.
12. Cautiousness, large.

13. Benevolence, full.
14. Veneration, full.
15. Hope, on one side, small; on other, full.
16. Ideality, small.
17. Conscientiousness, full.
18. Firmness, large.
19. Individuality, full.

"Burk's head is rather above the middle size. The posterior lobe of the brain is large, and the middle lobe, in which are situated the organs of Destructiveness, Secretiveness, and Acquisitiveness, is very large; at Destructiveness in particular the skull presented a distinctive swell. The anterior lobe, or that of intellect, although small in proportion to the hind and middle lobes, is still fairly developed, especially in the lower region connected with the perceptive faculties. Self-esteem is prominent, and has indented its form distinctly on the skull.

"The general result of this development is, that the animal feelings are very strong; the moral feelings are proportionately feeble, but not wanting; while observing intellect is present in a considerable degree, but reflecting intellect much less."

Thus, if the phrenologists are right in these admeasurements, and if they are capable of ascertaining the localities of the instruments of the passions, we see, as might be expected, a mixture of good and evil ones. Let us glance at the history of Burk, as diligently collected by Mr. Ireland, Junr.

This man was born in the North of Ireland, and was 36 years of age when he expiated his crimes on the scaffold. His father was a cottier, and gave young Burk a better education than is usually obtained by people in that rank of society. At school he was an apt scholar, cleanly, active, and good-looking. He was taken into the service of a clergyman—afterwards into the service of a gentleman in Strabane—but ultimately he enlisted in the Donegal Militia. The regiment being disbanded, he came to Scotland, and worked on the Union Canal, where he became associated with the woman Macdougall. Afterwards he came to Edinburgh, and lodged in one of those

haunts of wretchedness and vice quaintly entitled the "BEGGAR'S HOTELS." The accidental death of a lodger in Hare's house, seems to have started the first idea of the horrible traffic which was afterwards carried on in human life. The body was sold to a Lecturer, and the money being expended, Burk decoyed a woman into the fatal lair, and for the first time stained his hands with blood! Conscience being once stifled, the sword was drawn against nature, and the scabbard was thrown away. Burk and Hare repeated similar tragedies sixteen times in one year! But though the feelings of humanity may be smothered, murder will not sleep—and detection ensues. The end of Burk is known. The wretched sequel of Hare's existence is too horrible to be imagined. Consumed by the fires of a hell within his own bosom, and spurned from the habitations of man, wherever his infamy is known, this loathsome stain on human nature, this melancholy blemish on the works of our common Creator, has, by adding treachery to murder, exchanged the momentary expiation of the scaffold, for years of unutterable remorse and indescribable torture!

And yet, the history of Burk, if correct, will shew that the direful passions or propensities of his nature lay dormant, as it were, till penury and opportunity opened the prospect of gain which the good dispositions of his mind were unable to resist, thus verifying the observations of Blair, which we have quoted above. The organs (phrenologically speaking) of destructiveness and benevolence counterbalanced or neutralised each other under ordinary circumstances; but the want of bread, the influence of bad company, and the temptation which restrictive laws on dissection held out, kicked the balance, and he plunged into guilt of the deepest dye.

It is no argument against the doctrines of phrenology that the organs of benevolence and conscientiousness, for example, should be found in such a man as Burk. The phrenologist admits the existence of the good as well as the bad organs, in all men—just as the divine (say Dr. Blair) assures us "the

seeds of good and bad qualities lie in all our hearts." But surely it is more philosophical and infinitely more physiological to say, that the organs of our propensities lie in the head, than that the seeds of them lie in our hearts. If the anti-phrenologists can give us any intelligible explanation of this latter theory, we are quite ready to abandon phrenology.

XXI.

HELLEBORUS ALBUS USED FOR PRODUCING
ARTIFICIAL CARDIAC DISEASES.

Dr. Quarrier has given a short notice to the above effect, in the first number of the Provincial Medical Gazette. A man of the name of Chapman, belonging to the marine artillery, had found out the secret virtues of the white hellebore, and turned it to the advantage (or rather disadvantage) of himself and others to whom he sold his powders at a high price. By taking the hellebore in various doses, the effects were, "either a sudden and severe illness for the immediate occasion, or to gradually undermine the tone of the stomach and digestive organs, producing every appearance of dyspepsia, attended by great nervous irritability, and violent and continued palpitation of the heart." This Chapman had deserted, and was taken in a remote part of the country, where he completely succeeded in deceiving the staff-surgeon of the district militia, who examined him, and reported his "total incapacity for service, in consequence of the *organic disease of the heart*."

The foregoing facts are not uninteresting, because they shew how much the function, or at least the action of the heart is influenced by the state of the stomach. Dr. Quarrier states another fact which is worthy of attention. "This practice (of taking hellebore) was productive of some alarming consequences for a considerable period;—some were permanently injured, having actually produced the disease which they intended to counterfeit." Thus disorder of function

led to disease of structure in many instances. It is curious, however, that white hellebore should so peculiarly affect the heart when taken into the stomach. We can hardly attribute this solely to sympathy of the one organ with the other. It would seem that there is a special or specific tendency in hellebore to affect the heart, as squill affects the kidneys, or cubebs the urethra.—There is no accounting for, nor yet denying these specific tendencies in drugs. On the knowledge of these specialities most of our success in practice depends.

XXII.

CORPORATION MONOPOLIES—MAMMON OPENLY
ADORED—PATRIOTISM OF THE IRISH
APOTHECARIES' COMPANY.

It is fortunate that vicious principles generally work their own destruction—and that the attempt to enforce old, obsolete, and unjust statutes, (unjust as applicable to times present,) ends in the abrogation of those statutes, and the enactment of regulations somewhat in consonance with the advance of knowledge and the spirit of the age in which we live. Ireland seems destined to afford striking illustrations of these remarks. The adamant chains of bigotry and intolerance by which five millions of her inhabitants have been for centuries, held in disgraceful thralldom, are rent asunder by the voice of an enlightened legislature—but not before gigantic efforts were made by those who were oppressed. With the hope, no doubt, of imitating their superiors, the Apothecaries company in Dublin, appear determined to shew their "brief authority" to the utmost stretch of the letter of the law—especially as the exercise of their prerogative has the double effect of legally picking the pockets of others, and replenishing their own! Cupid is painted blind—and so should cupidity. The little tyrants of the pestle and mortar have over-reached the mark; and by the attempt to place on a level with quacks and imposters those men

who have graduated in regular universities—who have served their king and country by "flood and field"—and who are consequently superior to themselves—by this base attempt, we say, they have roused the spirit of the injured party, and a forcible appeal is made to Parliament, which is likely to end in a termination of their monopoly.

Some forty years ago the wisdom of our ancestors, in the Sister Kingdom, enacted a law that all young gentlemen designed for the medical profession, should undergo an examination as to their classical knowledge previous to apprenticeship, and another examination as to medical and pharmaceutical acquirements, before embarking in the practice of their profession. We do not find fault with the act, but with those who are carrying the act into operation: Whatever may have been the words, it is clear that it could not have been the object of the bill to prevent other than ignorant or unqualified persons from practising as apothecaries. It would be absurd to suppose that it was meant to prohibit physicians from dispensing their own medicines if they thought proper! Is it not odious and disgusting that the penalty of one hundred pounds which was ordered to be levied on quacks and pretenders who should presume to practise without education or qualification, should now be levied on physicians and surgeons who have all passed a *much higher tribunal* than that before which they are summoned? That the whole and sole object of this movement among the jalap-mongers of Dublin, is sordid pelf, will be patent as the sun in the firmament, by the following observations of under secretary Dawson in the House of commons;—

"Mr. Dawson had two similar petitions to present, one from the physicians, surgeons, and apothecaries of the county of

Londonderry; the other from the same description of medical practitioners in the county of Tyrone. The petitioners complained of the peculiar hardship to which they were exposed, by means of the monopoly enjoyed by the Apothecaries' Company. The act of 1791, by which the Apothecaries' Hall in Dublin was incorporated, prevented individuals from compounding and dispensing medicines who had not received a license from the company. The object of the restriction might have been a very wise one; it was probably intended by these means to hinder unskilful persons from compounding drugs. But the petitioners did not come under that denomination. The act already referred to contained a clause, authorizing the Apothecaries' Hall to recover a penalty of 100*l.* from every person who should attempt to exercise the business of an apothecary without their license. The consequence of the way in which this penalty was now imposed, was to render an act passed to protect the health of His Majesty's subjects the means of filling the pockets of the Apothecaries' Company. The Apothecaries' Hall had commenced actions against many individuals for compounding and dispensing medicines without having complied with the regulations of the company. In adopting this course they had not exhibited the slightest inclination to serve the public, by preventing incompetent persons from acting as apothecaries: their sole object appeared to be to minister to their own profit by securing the penalties. They had chosen skilful and able persons against whom to enforce the law, practitioners who, having received their diplomas from the colleges of London, Glasgow, Edinburgh, and Dublin, thought it derogatory to their dignity to go to the Apothecaries' Hall for the purpose of taking out a license. These persons had been selected as victims, and the worst consequences must ensue if a stop were not put to the mischief. There were not fewer than 256 medical practitioners, who had taken out their diplomas in the manner described, and who were now resident in the north of Ireland, where they exercised the profession of physicians, surgeons, and apothecaries, rendering themselves, by their necessary assumption of the last-named calling, liable to the penalties which it was in the power of the Apothecaries' Company to inflict. It was said to be the object of the Apothecaries' Hall, in Dublin, to put these

250 gentlemen under an annual fine or mulct of 20*l*—the sum demanded for a license; and thus to acquire a revenue of 5,000*l*. a year at their expense. What the Apothecaries' Company aimed at was, not to prevent unskilful persons from practising as apothecaries, but to benefit themselves in a pecuniary point of view, and keep up their monopoly. They never inquired if a man were skilful or not, but whether he was able to pay the penalty. When he paid it, they sent him a certificate of practice without any examination. It appeared perfectly ridiculous that persons capable of acting as physicians, surgeons, and apothecaries in the army and navy—who had retired on half-pay, and who were sufficiently skilful and intelligent in their profession to be of the utmost service to the community—should not be qualified to act as apothecaries without license from a body of men such as the Apothecaries' Company. Yet that was the situation in which 250 practitioners in the north of Ireland were placed, and from which they prayed to be relieved. The petitioners deprecated the monopoly, and the unjust taxation imposed by the Apothecaries' Hall. He called the attention of his noble friend (the Chief Secretary of State for Ireland) to the subject, which he conceived to be one that could not be passed over without investigation. The petitioners prayed for relief from the operation of the act of 1791, on their own behalf, and on that of all persons who had obtained licenses or degrees from any of the royal medical colleges in Great Britain or Ireland. That did not appear an unreasonable proposition: a diploma thus obtained was a better security than a certificate of the Apothecaries' Company. He hoped his noble friend would bring in a bill without delay to remove the inconvenience of the present system. The Apothecaries' Company were so well aware that the subject was one which would never stand the test of inquiry, that they were giving orders to levy the fines with the utmost expedition against the gentlemen who had rendered themselves liable to them. No time should be lost in taking the matter up; the subject was one which called for the interposition of the house, not only for the sake of the medical profession, but for the sake of the inhabitants of the country, more particularly of the north of Ireland."

"Lord F. L. Gower assured his hon. friend who had appealed personally to him

on the subject, that he had not overlooked the matter to which his honourable friend now directed his attention. Upon the presentation of a petition from the county of Down, on a former evening, to the same effect as those now presented, he took an opportunity of expressing his concurrence in the object of it as far as he could do without prejudging the case. He had put himself in communication with the authorities on the other side of the water for the purpose of ascertaining whether any answer could be made by the Apothecaries' Company to the allegations of the petitioners. He did not yet know the nature of the representations that would be made by the company; but he wished as much as any man, that the evil, if it were of the kind, or to any thing like the extent stated, should be remedied. He believed that under the statute incorporating the Apothecaries' Hall, any practising apothecary might become a member of the company on the payment of 100*l*. He was not aware that the company had adhered very strictly to the provisions of the statute, or exercised a prudent discretion in the course they had adopted.

"The petitions were ordered to be printed."

The knights of the pestle in Dublin will not be slow to perceive that these golden visions of five thousand a year from the unlicensed graduates in the North, are likely to be dissolved into thin air by Lord Gower and a British Parliament—not overnice in questioning the "wisdom of our ancestors," or even revising statutes that were, like the laws of the Medes and Persians to have been irrevocable.

We hope that the words of Lord Gower and Mr. Dawson will not be entirely lost on certain corporate bodies—and especially the Company of Apothecaries, on this side of the Channel.

The very same vexatious, and, we would add, unjust regulations exist in this country. If Sir Henry Halford, Sir Astley Cooper, or Sir Gilbert Blane, were, from choice or necessity, determined to add pharmacy to their other avocations, they must present themselves for examination and a license at "THE HALL!!" So if a man have served in the highest offices of the army or navy medical departments—or have graduated at the first universities of Europe, he must have the license of "THE HALL," before he can administer a saline draught, or a dose of calomel! We do not know whether or not the Apothecaries' Company insist on an actual examination in these cases—but if they demand any fee for the license, we maintain that they act illiberally and unjustly. All they should require is a sight of the diploma from a regular university—or the medical commission in army or navy. Those documents produced, the license should be granted—or rather the declaration should be made that the individuals alluded to did not come within the virtual meaning of the act of 1815. This would be the just, liberal, and honourable procedure—and if a contrary system be pursued, the aggrieved party should petition Parliament, as has been done by their brethren in the North of Ireland.

Sat verbum sapientibus.

XXIII.

CHARGE OF MURDER—KNIFE FOUND IN THE ABDOMEN OF A FEMALE.

Forensic medicine has flourished of late, and some most extraordinary medical evidence has been given. The alleged murder of Mr. Neale, by Butler the soldier, had hardly been disposed of, when a most mysterious trial was reported from Bury St. Edmunds, some

particulars of which are worthy of record in a medical journal.

On the evening of the 11th of October last, (Sunday,) a butler and a female servant quarrelled in the pantry, and the former having a small tray, containing four knives and forks, in his hand, threw them down at the feet (as he alleged) of the female, in order to frighten her. The latter went out of the pantry for about three minutes, and then returned, saying she was wounded. The butler inquired where—and she replied in her side. She borrowed a silk handkerchief from the butler, and then went into the kitchen where there were prayers. In the night she was found to be ill, and next day a surgeon, Mr. Bartlett, was called to the patient. He found a wound of an inch in length, between the spine of the ilium and the margin of the ribs, whence there had been considerable hæmorrhage. Mr. B. dressed the wound, without examining its depth or direction with a probe. She had been sick, and complained of great pain in the abdomen. She died at half-past one o'clock on Wednesday morning. On examination, Mr. Bartlett "found a knife lying transversely in the body, with the point a little turned upwards. It had penetrated the stomach, one of the small, and one of the large intestines. It had produced very extensive inflammation, which occasioned her death." It appeared that the clothes, including even the stays, were perforated by the knife. It also appeared that the female in question was of a most passionate temper—that she had a great aversion to the butler's wife—and accused the man that day of being to see his wife, to whom she applied a most opprobrious epithet. These circumstances induce us to conclude that the deceased committed suicide under some mental hallucination or momentary gust of passion—perhaps of jealousy. It is quite impossible to suppose that the butler could have perpetrated such a crime, and worked a common cheese-knife through the clothes of a female, so as to be completely buried in the abdomen of his victim—and all this against her consent! The idea is preposterous. Nothing but a fit of desperate insanity could have enabled the deceased herself to accomplish such a horrible and destructive operation. Neither do we attach much importance to her dying declaration that the knife found its way into the posi-

tion above described merely by being thrown at her from a tray. She absolved the butler from all design upon her life, and freely forgave him on her death-bed. The case has no parallel, except in the annals of insanity—and under that head we would certainly range the transaction, though it does not appear to have been so viewed by either judge, jury, or medical witnesses. The man was acquitted.

too hard, and applied it to cases to which it was in every point of view inapplicable. In the work of Mr. Bell on Diseases of the Bones, so fully noticed in the Review department of the last number, is detailed an interesting case of the affection in question. Every contribution to the stock of facts on a subject of which we know so little is a valuable boon to the profession. As the case is short, we give it in the author's words.

XXIV.

BLOODY TUMOUR OF BONE.

The first case of this curious disease will be found, we believe, in the works of Mr. Pott, who observed it in the calf of the leg, and imputed it to a diseased condition and rupture of the posterior tibial artery. In this pathological supposition it seems, from the cases which have since been detailed by other authors, by Scarpa, Mr. Pearson, Mr. Else, Mr. Freer, of Birmingham, Mr. Hodgson, and still more lately by M. M. Lallemand and Breschet,* that Mr. Pott was wrong. It appears that the disease resembles closely the aneurism by anastomosis, being seated in the smaller arteries not of the soft parts, but of the bones themselves, and especially the tibia and fibula. M. Breschet strongly recommends the application of a ligature to the femoral artery for the cure of this affection in its early stage, but knowing what we know respecting the failure of the ordinary operation for aneurism in cases of aneurism by anastomosis elsewhere, we are not only sceptical of the value of M. Breschet's proposition, but even dissent from it in toto. The profession are beginning to discover, that they run the Hunterian operation for aneurism a little

"The patient was a lady about sixty years of age, who had suffered from what she imagined to be rheumatism of the upper arm of the right side, at least, the arm was painful on being handled, and a feeling of aching was referred to the bone. In the course of several months after the first symptoms of the bone being affected had appeared, the upper arm began to swell, and the enlargement went on progressively increasing, until the middle portion of the diseased humerus measured more than double the circumference of the sound one. She suffered considerable uneasiness in the part, and the pain extended downwards to the points of the fingers. The surface of the tumour was not discoloured, but several large and swollen veins coursed over it. Before applying to my father she had consulted a bone-setter, who, according to the principles of his craft, recommended frictions and shampooing. This practice, the patient affirmed, had the effect of exasperating the disease, and of inducing intolerable pain.

"Although the real nature of the complaint was not suspected, still as it was on the increase, and presented some of those characters which are met with in osteo-sarcoma in its middle stages, and in spina ventosa in its more advanced, it was deemed proper, by the several surgeons assembled in consultation, among whom were Professor RUSSEL, Dr. ABERCROMBIE, and Mr. CRAIG, of Ratho, to amputate the limb. My father accordingly removed the arm from the socket of the shoulder-joint; there was little bleeding at the time, although the arteries which supplied the upper part of the limb with blood, were unusually dilated. About six hours after the operation, however, secondary hæmorrhage occurred, and it was found necessary to secure three large vessels,

* A full account of the Mémoires of these gentlemen will be found in Vol. VII New Series, of this Journal, to which we refer our readers for information respecting the disease.

which had not thrown out blood during the operation. This patient recovered in a short time from the operation, and *suffered no return of the complaint*, but died two years afterwards, from a sudden attack of pleuritis.

"In order to ascertain whether any connection existed between the great vessels of the limb and the tumour of the bone, I injected the arteries of the arm from the humeral artery, with a preparation of glue and vermilion. The injection ran kindly, and flowed through the minutest of the distal arterial ramifications.

On removing the muscles, the tumour was found to be confined entirely to the bone. It was, when divested of the soft parts, nine inches in circumference, and six in length. The periosteum was entire, and somewhat thickened. On cutting into the tumour, the scalpel grated upon what seemed to be osseous depositions, which pervaded its tissue; but its general texture was of a fibrous character. A thin, though imperfect shell of bone, which was internal to, but in immediate contact with, the periosteum nearly coated the tumour.—there was a large cavity, in the centre of the tumour, lined by an organized membrane, into the vessels of which the size injection had flowed; and the cavity itself was filled, partly with fluid blood of a dark colour, partly with concentric coagula, and partly with hardened injection.

"From the pathological appearances presented in this preparation, I have no hesitation in esteeming it as a specimen of what M. BRESCHEZ has termed Aneurism of Bone; and several able anatomists to whom I have shown it coincide in opinion with me."

An etching of the bone, shewing the tumour in situ, and its section, is appended, but little of course can be learnt from it.—We cannot dismiss the case without again expressing our conviction that the disease is not amenable to the ordinary operation for aneurism, and that whether in its earliest stages it be or be not remediable by nature or by art, that amputation is the only remedy when once it has acquired maturity and magnitude. It is not unlikely that cas-

es of the disease have occurred to professional men, which have not met the eye of the public, but if any such there be, we trust that their possessors will enrich their brethren with the details.

XXV.

CLINICAL MEDICINE.

We are glad to see that this neglected branch of medical instruction, though the most important of all, is gradually lifting its head, and forcing itself on the attention of teachers and "public functionaries." Dr. Gordon, of the London Hospital, a most zealous and talented physician has published an Introductory Lecture to his Course of Clinical Instruction, which we recommend to the perusal of all medical officers of public Institutions. It contains sound principles and most judicious advice—not only for the teacher, but the pupil. We can only offer an extract, as a sample of the lecture. After exposing the fatal errors of wild hypothesis, the able author brings in the empiric and the routinist for their share of censure. In truth, we have good reason to know, that practice without principles does infinitely more harm, because it has a much greater sphere for its action, than principles without practice!

"Let us now reverse the picture; and if I have spoken with some severity of mere hypothesis, how much more keenly might we depict 'practice without principles?'—How should we catch the ever varying lineaments of the many-headed monster 'empiricism,' in all its shades and gradations from the man, not of one idea, but of one drug, up to the respectable and regular practitioner, who has a particular remedy for each and every disease, without knowing what the disease really is, or in what organ of the body it is seated?—the empirical knowledge preached and acted upon by nurses and *Lady Bountifuls*, and by practitioners who deserve to be ranked with them, confounding in their frightful confi-

dence one disease with another, treating colic for interitis, and rheumatism of the intercostals for pneumonia!

"The correction of both these errors is the great object of a clinical course, in which the attention of the student is directed to disease as it really exists; and thus supposing him to be, as he ought, acquainted with the principles of his profession, theory and practice are made mutually to aid and correct each other. Here he will also soon begin to learn a painful truth:—the uncertainty of his art, even when entered upon with every possible advantage; and understand the necessity which the conscientious practitioner feels of carrying along with him the principles by which a clinical course is regulated—the daily necessity of correcting his previous impressions, by the facts which come before him—of altering his confidence in the distinctive characters of disease, and the action of remedies. The uncertainty of our art, indeed, has not escaped the sneer of the philosopher, nor the sting of the humorist; and has been made the frequent theme of wit and ridicule. The following apologue, says D'Alembert, made by a physician, a man of wit and philosophy, represents very well the state of medicine:—'Nature is fighting with the disease—a blind man armed with a club, that is, the physician, arrives to settle the difference,—he first tries to make peace:—when he cannot accomplish this, he lifts his club and strikes at random. If he strikes the disease he kills the disease; if he strikes nature, he kills nature.' This story, which the humorist applies to the art itself, may not unaptly fit those who exercise it on unsound principles; and few of us there are who have not in our experience, seen specimens of practice in which the random blows of the blind man may be recognised."

"I have thus endeavoured to point out the indispensable connexion of theory and practice; and clinical study as the only vinculum, or tie by which they are to be united. I have adverted to the uncertainty of medicine, as a motive to perpetual

exertion, and depicted our profession as one of daily study as well as daily toil.—I have done this advisedly, feeling, that in addressing an audience of medical students, it is my duty, as it is my pride, to impress upon you the extent and dignity of a profession to excel in which, requires a greater compass of knowledge than any other art—a greater variety of liberal accomplishments—and a quicker and readier application of these to the wants, necessities, and afflictions of mankind."

XXVI.

M. M. DELMAS AND TAVERNIER, ON UNION BY THE FIRST INTENTION.

It appears that union by the first intention is far from being yet universally adopted in France, though many of the leading surgeons are ranked as its supporters.—There, as here, science, as well as every thing else, has its Whigs and its Tories. Its sticklers for the "wisdom of their ancestors," and its mad liberals raging for innovations and respecting no wisdom but their own. We are beginning in this country, to discover that the *ultras* on both sides are wrong, and our views of union by the first intention not being of quite such recent growth as amongst our lively neighbours, have softened by the sobering influence of time into a more staid but stable form. In fact, our most eminent surgeons, though fully alive to the great advantages of union by the first intention, in the great majority of wounds, whether caused by accident or *secundum artem*, are yet not blind to the fact, that it frequently is, and has been attempted, without any reasonable chance of success, and therefore, with highly injurious effects. It is not our intention to occupy like M. M. Delmas and Tavernier, some *thirty* pages in *arguing* the question, but merely to extract the heads of a case or two.

CASE 1. *Amputation of the Breast—complete union in nine days—subsequent Cancer of the Bones.*

The breast of a lady fifty years of age, affected with open cancer, was removed by the father of M. Delmas, in the month of September, 1819. Some axillary glands were also removed, and the wound was of very great size. Three ligatures were applied, and after waiting for some little time, and sponging the wound with warm water, to see whether other vessels would bleed, the lips of the wound were brought together. Next day some of the straps were removed, and more than an inch at each angle of the wound had united. On the 7th day the ligatures had all come away, and on the 9th, the wound was completely healed.

In another patient of the same surgeon, the recovery was so rapid that she returned to her work as a servant on the 8th day. To return to the subject of the present case, she died in two years after the operation with symptoms of inflammation of the chest, but both before and after death the bones broke with the slightest force. If the poor lady leaned upon her hand to change her position, a fracture was the consequence, and the persons employed about the corpse, heard the bones snap in every direction on moving her into the coffin, &c.

This case, briefly as we have given it, illustrates an important point with regard to the operation for cancer of the breast, viz. that although it may ultimately fail, it gives the patient an additional lease of life, and generally kills at last by internal disease, saving her the misery of seeing herself sink with a foul, painful, and disgusting sore. Perhaps we may be allowed to make a remark on the management of the bleeding vessels in this operation. The best surgeons of the present day make it a point to search for and secure every vessel, even of moderate size, which bleeds, or is likely to do so. This, though laughed at by some bold practitioners, is an excellent precaution, as it totally prevents the risk of secondary hæmorrhage, one of the most unfortunate accidents that can occur in operations of this description.

CASE 2. Compound Dislocation of the Ankle-joint—Compound Fracture of the Leg—Traumatic Delirium—Amputation—Successful Issue.

Madame Clavieres, ætatis fifty-five, whilst walking on a bank five or six feet high, slipped, and came with the whole weight of her body (an enormously fat one) on the right foot. She was carried to her house, where she was immediately seen by Dr. Bonnemaison, and shortly afterwards by M. Delmas and his father. The foot was strongly twisted inwards, bruised and torn; the integuments over the outer ankle were lacerated to the extent of two inches, and through the laceration protruded about an inch of the lower extremity of the fibula; and lastly, it was evident that the ligaments uniting the tibia behind to the astragalus and os calcis were torn. About the lower third of the leg was another laceration of the soft parts through which the fibula also projected, and the tibia was fractured at the same place. Several other bruises existed on the leg. The superior extremities were agitated with spasmodic contractions—the cries were incessant—the eyes were fixed—the respiration hurried—the pulse hard and small—the patient incoherent. Owing to the absence of other medical men the operation was deferred for four or five hours, when it was performed about three inches below the upper extremity of the tibia. The leg was of such an uncommon size, that the incision was made through skin, muscle, and all to the bone, instead of attempting to separate the integuments from the muscles, as usual. On examination of the limb, a great quantity of blood was extravasated in different parts, the muscles were greatly injured, of brown colour, and not adhering to the bones, the fracture of the fibula was oblique, the articulation of the tibia and astragalus laid open, that of the fibula entirely destroyed.

Antispasmodics were administered, and next day the delirium had entirely subsided. At the end of four days a third of the stump had united, but owing to the enormous size of the wound, it was five or six weeks before the patient was completely recovered.

We believe that few cases occur of so eminently successful a nature as the foregoing, certainly very few or none in the hospital practice of a large town. The delirium which followed so hard upon the accident was evidently of the traumatic kind, and its subsidence after the operation will afford a precedent, and assist the surgeon in deciding on amputation in a future case. We have seen one or two operations performed whilst the patient was labouring under incoherence, although not actual delirium, but they all proved fatal. It will be observed, that the two cases we have related, have been given by their author with different views, but it matters not. If facts can be turned to account, it signifies little with what particular *object* they were put forth.

XXVII.

MEDICAL REPORTING.

In our last number, page 513, we made some observations on the evil consequences attendant on the present, or rather we hope the late system of medical reporting. In the London Medical Society, Dr. Clutterbuck brought forward a motion, at a special general meeting, for the entire suppression of medical reports of their proceedings. Dr. C. very ably exposed the many bad consequences to which the system of reporting led, and some of which we had previously pointed out. Had the worthy Doctor limited his motion to a correction of the evil rather than to a total suppression of reports, he would have had nine out of ten votes in his favour. Even as it was the votes were even, and the president gave his *additional*, or casting vote, against Dr. Clutterbuck.

The society then left it to the council to draw up a plan for the regulation of reporting, and the following appears to be the substance of the regulations agreed upon, and read to the Society.

1mo. The reporter must be a medical man, and he is not to take any part in the debates of the society.

2do. A reporter from each journal is to

be admitted only by a card from the president, which admission is to continue *during the pleasure of the president*—in other words, as long as the reporter "*se bene gesserit*," that is, reports the truth and nothing but the truth.

3tio. If any gentleman in the society, when stating a case, requests that his own name, or that of the patient, may be kept back in the report, his request is to be complied with by the reporter.

By the foregoing regulation there is full permission given to journals to report "the truth, the whole truth, and nothing but the truth." We think that such permission ought to satisfy the most strenuous advocate for the liberty of the press. We grant, indeed, that such a regulation must prove a very great annoyance to some journals, where the garnish of scandal, falsehood, and misrepresentation, form the grand attraction to the literary banquet. How will the profession stare to see the blushing Goddess of Truth figuring in the pages of the *Lancet*! The phenomenon will not be less surprising than the presence of Catholics in Parliament! The goddess, to be sure, will find herself occasionally in suspicious company; but who knows what wonders she may work by the mere force of example?

We hope the WESTMINSTER Medical Society will follow the salutary example set them by the LONDON.

XXVIII.

OBSERVATIONS ON THE POLISH CARBUNCLE AND AN EPIZOOTIC DISEASE AS ITS CAUSE. By A. T. HELBICH, M. D.

The pamphlet containing these observations has not come to our hands; and for the following short notice of it we are indebted to our transatlantic cotemporary, the AMERICAN JOURNAL OF THE MEDICAL SCIENCES, No. IV. for August, 1828.

"The Polish carbuncle, which was

thus denominated by Schmalz, on account of the frequency of its occurrence in Poland, is the same disease which has been indicated by Chaussier and other French writers by the name of *pustule maligne ou gangreneuse, bouton malin, puce maligne &c.* and by the Germans as *brand-blatter, schwarzblatter, &c.* There can be little doubt but that this terrible disease has occasionally existed from the remotest antiquity, and in various countries under similar circumstances, though our author believes it to have been confounded with the gangrenous anthrax of medical writers. Ramazzini relates that it raged in Italy in 1609; Schroek in 1712, and Buchner in 1726, speak of it as existing in Germany and Poland; Chaignebron describes it at Paris in 1767, and Hartman observed it the following year in Finland; Berlin describes this disease as having destroyed two hundred negroes at Guadaloupe in 1774. Since that period various writers have treated of this disease, but few of them have enjoyed opportunities of observation equal to Dr. Helbich, whose account is given with that vigorous raciness, so peculiarly distinctive of originality.

As the Polish carbuncle or gangrenous pustule is communicated to the human race by simple contact from diseased domestic animals, Dr. Helbich properly commences with a sketch of the predisposing causes and form of the disease which affects these creatures. He states that when the spring comes on rapidly and pleasantly, the sudden melting of the ice and snow swells the water courses, which overflow the whole soil of low regions. As the summer approaches the waters subside, leaving numerous pools, that soon exhale fetid vapours, and afford an unwholesome drink to the cattle, which are all day exposed to an ardent sun. The inundation spreads a filthy slime over vegetation, which is subsequently filled with putrescent insects. Cattle using such food, soon begin to grow unhealthy, prostration of strength ensues, and a disposition to putrid and destructive fevers supervenes.

"Three stages may be observed in this disease among domestic animals. The in-

ceptive, the period of increase, and that of termination. In the first, the animal loses appetite, becomes languid, weak, somewhat thinner, the eyes lose their lustre, and sometimes have a subinflammatory redness. Cows cease to yield milk. After various intervals chills ensue, which are even more intense when the attack comes on in Summer. The sadness and feebleness of the animal increasing, fever begins to rise, the bowels are constipated, and the animal is wrung by a painful tenesmus. Ruminant animals cease to ruminate. The left side becomes tumid, and painful to the touch. Sometimes the attack presents differences according as the appetite for food remains or is exceedingly increased, or scarcely any fever comes on. Occasionally the disease comes on with few obvious symptoms.

"The fever persisting in severity, is followed by the greatest prostration of strength, and the increase of the disease is indicated by the tottering of the hinder limbs. Soon after the animal falls down, having the neck very much stretched out, or with the mouth drawn to the left side. The teeth are gnashed. The whole body convulsed, and the internal sufferings exert deep groans. The bowels are totally obstructed. Blood burned to blackness, flows most copiously during the tenesmus, or in consequence of the internal convulsions from the prolapsed rectum. Sometimes I have observed an animal to fall down and expire suddenly, without exhibiting any of the more violent symptoms.

"The termination of the disease is twofold; sometimes the worst symptoms are protracted for some days, and the fever diminishes; fetid evacuations, at first copious, become at length natural; rumination returns, and, after a long convalescence, the animal recovers its health. But, more frequently, the disease attains its highest degree. The skin is studded with knots or gangrenous carbuncles; chronic spasms end in universal tetanus; a viscid saliva flows from the gaping mouth, the respiration is only continued by painful convulsive efforts, and after long agonies the poor beast expires.

"On dissection, the lungs are found loaded with black blood; spoiled, and sometimes so soft that they break with the least touch. The liver is sometimes natural in appearance, at other times beset with squalid ulcers; the gall-bladder is copiously filled with black bile; the intestinal tube is inflamed and filled at different parts with a colluvies of black and fetid blood. Most frequently, however, the characteristic sign of the disease is found in the spleen, as this viscus is of thrice the natural size, rotten, and as if composed of nothing but clotted blood, showing no evidences of its proper structure, and bursting immediately when dropped on the ground.

"Although this fever, attacks all domestic animals, it is not contagious, as from whatever cause it may arise it affects one herd without extending to another. It is often observed that healthy calves suck diseased cows without taking the disease; and at times of a herd confined to the same pasture, part will perish of the malady without the other part being at all affected.

"During the ten years which Dr. Helbich practised in Poland, he treated two hundred patients labouring under the carbuncle, and never saw a single instance in which there was any reason to believe in the spontaneous origin of the disease in the human subject, but that, 1st. Whenever the putrid fever raged among the cattle, men were affected with the Polish carbuncle. 2d. The disease was most especially frequent wherever the epizootic raged most violently. 3d. Those persons only took the contagion, who were by their occupations obliged to be about cattle, as farmers, herdsman, butchers, tanners. &c. 4th. The Polish carbuncle only seized upon the naked parts of the body fitted to receive the poison, as the face, arms, and feet; rarely were other parts affected. 5th. Another argument in favour of the communication of the disease from without, is that it first appeared externally, and afterwards the internal symptoms came on.

"The disease was communicated by simple contact of the blood of the diseased living animal, or any of the ex-

cretions, or by merely touching the skin of the nostrils, as has been proved by many authorities. I shall hereafter relate such an instance which fell under my own observation.

"The disease was also communicated by the contact of any part of an animal dead of the putrid fever. As all the solids and fluids of the animal contain the poison, it is not surprising that this mode of communication should be the most frequent. The country people, ignorant of the nature of the disease, killed the sickly cattle, either for the sake of their flesh, or for the purpose of diminishing their loss by the sale of their skins. Under any of these circumstances, naked parts of the human body were brought into immediate contact with the carcass, which poisoned with virulence, whether the integuments were sound or excoriated.—Whether one part of the carcass were more poisonous than the other is uncertain, and not easy to be ascertained by experiment. The viscera, as if containing the seeds of the disease, appeared to be more noxious than other parts. A warm carcass infected more readily than a cold one. All parts of the surface of the human body take the infection with equal readiness; wherever the skin is touched by the poisonous fluids the deleterious principle is absorbed, and the gangrenous inflammation supervenes. The following instance is the one above referred to:—

"In the province of Kramsk, about the commencement of June, 1826, some cattle died very suddenly, when no person was known to have the Polish carbuncle, nor had the people observed any remarkable cause for the disease among the cattle. Three young rustics were engaged in stripping the hide from a dead ox, when a very robust and healthy country wench, about thirty years of age, passing by, fell to deriding the young men for skinning the dead animal. Seeing that she had offended them very much, she took to flight, and they chased her, caught and threw her on the ground, and with their bloody hands, as a good joke, smeared her face about the lips, her bosom, and neck. In three days afterwards, all the parts thus

touched were effected with a violent itching, and broke out into carbuncles. From that time many of the inhabitants of the province were effected by the disease, and an individual perished from neglect of all treatment. When the prefect heard of the dreadful state of the disease he requested me to go thither, and I found fourteen persons suffering from the carbuncle, and one dead, as just mentioned. The unfortunate woman above mentioned was in the agonies of death when I arrived, and died a few hours afterwards, on the eighth day from the application of the matter, and on the fifth, from the eruption.

"It is very singular that those who are engaged in skinning or cutting up the animals, which are uniformly killed by the Polish peasantry, as soon as they perceive them to be affected with the fever, are more liable to be attacked by the carbuncle than those who eat of the flesh. Dr. Helbich has seen as many as two hundred boors eat of such flesh, boiled and roasted, without the slightest injury, while the skinners invariably fall under the disease. A couple of rascally butchers, at the beginning of one of these epizootics, brought by stealth a diseased bullock into the town of Konin, which they slaughtered at night and exposed the next morning in the market for sale. Many of the inhabitants, and Dr. Helbich himself, purchased and ate of this beef, without the least injury, and the cheat might never have been discovered had not both the rogues in a few days afterwards, been rewarded for their exploit by an attack of the dreaded carbuncle. Nevertheless it is by no means to be understood that disease may not be communicated by such food, which should be most carefully avoided.

"Dr. Helbich does not believe that the disease is communicable from one human body to another, without actual contact of the diseased part.

"The disease begins in the following manner: a few days after the communication of the infection, a slight colourless swelling, like a flea bite, is perceived, which is unaccompanied by increased heat. In a short time, and generally at the same moment, a

pustule appears in the centre of the little prominence, never exceeding the size of a millet seed, and when examined by the microscope is seen to be filled with a viscid fluid. This pustule is productive of dreadful itching, and an irresistible propensity to scratch. When the epidermis is removed the pustule gradually increases, and is filled with an ichorous fluid, which at length becomes black. When the pustule is accidentally broken or opened with an instrument, a few drops of bloody humour escape, and the bottom of the little ulcer appears of a livid black, somewhat higher towards the edges, depressed in the centre, concave and scooped out like an umbilicus and secreting an ichor from all its surface. This gangrenous affection of the skin having advanced to the cellular texture, is at this time about the size of half a hazlenut. The disease soon after becomes more extensive, inflammation ensues in the neighbouring parts, gangrenous phlyctenæ form in the vicinity of the tumours, violent burning pains are felt, the skin becomes puffy and elastic; all the evidences of vast irritation show themselves; fever, nausea, vomiting, and all the signs of the participation of the stomach and bowels ensue, and, after a struggle varying in duration, the unfortunate patient expires.

"We regret that it is not in our power to follow our author throughout his account, as we cannot otherwise do him the justice we wish. Such an extension would be incompatible with the design of these notices, and we must hasten to a conclusion.

"The disease is always to be arrested in the first stage, as it is entirely local. Excision with the knife or destruction by caustic potash are uniformly successful when properly employed. Dr. Helbich, for reasons which will present themselves to every reflecting mind, gives a general preference to the caustic, and he has been very successful in treating the disease. The other treatment consists principally of the administration of such materials as are suited to keep up the strength of the patient, and diminish excessive irritation. The inflammatory stage is so short as scarcely to allow of an-

tiphlogistic measures. All local emollient applications are positively injurious and increase the gangrenous disposition. The dressings must be stimulating, and the country people frequently sprinkle the ulcers with salt, powder of cantharides, and other acrid and stimulating substances with advantage."

The foregoing document may give rise to interesting reflexions, not only as to the cause of the disease in animals, but as to the communication of it to the human race.

XXIX.

EXTIRPATION OF THE TONSIL.

The following case, which is related by Dr. Auchincloss, one of the surgeons of the Glasgow Infirmary, in the 5th number of the Glasgow Journal, deserves to be put on record, as it illustrates a homely, but practical point in surgery.

William M'Innes, 39 years of age, applied to Dr. Auchincloss, on the 7th November, to have an operation performed on his left tonsil. This occupied so completely the posterior fauces, that difficulty was experienced in passing the finger between it and the walls of the throat. It had a broad fleshy base by which it was attached to the upper part of the pharynx; its surface was of bluish dirty hue, and lobulated with ulceration in the interstices of the lobules; it was firm to the touch, save at one point, which was indistinctly elastic; the uvula was pushed to the roof of the mouth, but the neighbouring parts appeared healthy. He had no pain in the tonsil when pressed, and only complained of the difficulty of breathing and of deglutition. The tonsil, he said, had begun to swell 18 months before, after a syphilitic affection of the throat, for the cure of which he used a great deal of mercury. It produced but little inconvenience till about two months before his application, since which, it had rapidly increased in size. He had fallen off much in flesh and strength particularly within the preceding fortnight.

On the following day, assisted by Dr. Young, and in the presence of several respectable practitioners, Dr. Auchincloss extirpated the tumour with a curved probe-pointed bistoury. Having previously seized it by the middle with a pair of double forked forceps, by which it was pulled towards the opposite side by the assistant, he introduced the bistoury to its lower part along his fore-finger, with which he depressed the tongue, and cut from below two thirds up, on a line with the edge of the anterior pillar of the velum. The knife was then withdrawn, and seizing the forceps, the section was completed from above downwards.—Scarcely any bleeding ensued, the throat was gargled frequently with a strong solution of alum; on the 10th, the wound was rubbed with the lunar caustic; on the 7th day after the operation, the wound had cicatrized, and the patient is at present perfectly well. The part of the tonsil removed measured three inches by an inch and a half in its lesser diameter, and on cutting it open, presented a variety of structure. It was dense and firmly organized around its circumference, but partly fibrous, and partly spongy, with a number of small cysts towards the centre. In some of these cysts was contained a fluid somewhat resembling putrid blood, and in others a gelatinous semi-organized matter. A small quantity of pus had escaped during the operation;—the base along the cut surface was soft, and in every other respect seemed free from disease.

Two practical inferences may be deduced from the foregoing case. 1st, That excision of an enlarged tonsil may be had recourse to with safety, in so far as hæmorrhage is concerned; and 2d, that however much enlarged, or otherwise of a suspicious appearance, it does not necessarily follow that the disease is malignant, and it may therefore be partly removed without the least risk of the remainder assuming a bad character.

"It would certainly be improper to generalize from any individual case, but I should conceive that there are a sufficient number of instances on record

to prove the correctness of what is now alleged. Bertrandi, and several others, are said to have repeatedly extirpated enlarged tonsils, and to have never met with an instance of danger from bleeding. Dupuytren, at his *Clinique Externe*, is in the frequent habit of doing the same operation, without ever dreading hæmorrhage.

"As already stated, the exterior of the tumour prior to the operation, and its appearance on section after removal, seemed to indicate a malignant tendency. In this, however, we were deceived, by the part cicatrizing in the course of a few days—a sufficient proof that the disease was not of a cancerous or otherwise serious nature. By some authors this chronic enlargement of the tonsil has been improperly termed schirrhous. With many it is still a matter of doubt, whether or not cancer ever affects this part of the body. We are informed by Boyer that instances of this kind have occurred but they are at least exceedingly rare, and perhaps it may be fairly doubted whether such an affection ever exists.

"Of the two modes of removing enlarged tonsils, by the knife and the ligature, I should be disposed, in every case, to prefer the former, not only because it is the more expeditious, but, in reality, it appears to me fully the safer.

"I may mention, that in the above case, it was recommended to me to make use of the ligature, from an idea that its section might be attended with dangerous hæmorrhage. Considering the great bulk of the tumour, it was presumed, that the nutrient vessels would be very numerous, and in a state of enlargement. Had the ligature been used, I should at the same time have deemed it proper to cut off a part, so as to obviate any risk of suffocation from the increased bulk of the strangulated tumour."

We cannot lay much stress on cicatrization of the wound, as proving that the disease was not malignant. We do not believe that every malignant tumour cut into or cut across must necessarily pass into the

state of ulceration, indeed we know that such is not the case. At the same time we allow that, most probably, the enlargement of the tonsil in the present instance had not a genuine malignant nature, because such disease in such a situation is certainly very uncommon. For the most part the enlargements of the tonsil which follow the venereal or mercurial poisons, or occur in scrofulous subjects, present no particular change of structure. With regard to the mode of operation we fully agree in all that has fallen from the author of the case. We have frequently witnessed tonsils of considerable size removed by the curved probe-pointed scissors, and never with any ill consequences. Mr. Brodie is constantly performing the operation, and in no instance has he met with serious hæmorrhage. In children, Mr. Brodie takes hold of the tonsil with the Assalini's tenaculum, and snips off more or less of the gland with the curved probe-pointed scissors. The inconveniences of the ligature are very great,—those of excision trifling in practice, and greatly over-rated in books.

XXX.

ON THE CATARRHUS VESICÆ OF OLD PEOPLE. By M. CIVIALE.

A very considerable proportion of elderly people, especially in the upper classes of society, and among sedentary, literary, and luxurious characters, labour under, and are ultimately worn out by chronic inflammation of the bladder, with thickening of its coats, diminution of its capacity, and loss of power in its muscular structure to expel the urine. The evil is increased by the aversion which people evince to make known the nature of the complaint before it has made considerable progress—and, in fact, till it has become incurable, as it is generally thought to be by medical practitioners. M. Civiale, from the direction which his studies and practice have taken for several years past, has had numerous opportunities of seeing and treating this distressing malady. He has come to the conclusion, that the prima-

ry cause of the disease is atony of the muscular coat of the bladder. This organ, he observes, naturally becomes inert in old age, and slowly expels its contents. This inertia is augmented by sedentary habits, the sitting posture, warm and soft seats—and especially by neglecting the calls of nature, and the inclination to empty the bladder. In consequence of these the bladder becomes distended, and imperfectly contracts—a quantity of urine remains in the organ, and this remora leads ultimately to inflammation of the lining membrane, and, sooner or later, of all the coats of the organ, which become thickened, while the muscular coat loses its contractility. Hence the difficulty and pain of making water—hence the ropy or muco-purulent urine. In process of time, an irritative fever is established, and the patient is worn out by a painful and lingering complaint. The indications for treatment are more easily laid down than carried into practice. They are as follows:—to lessen the sensibility of the bladder and urethra, if the patient be very irritable—to facilitate the discharge of the urine—to prevent the accumulation and remora of glairy mucus in the bladder—to alter the disposition of the mucous membrane of that organ, and to draw irritation to the surface. These indications, M. Civiale asserts, are easily accomplished, if we go the right way to work. The catheter, he considers, as the grand instrument in the cure of the disease. By this we not only empty the bladder by removing the mucus and urine, but we can inject diluents that wash away all irritating matters out of the bladder. By these means the contractility of the organ is restored, and the urine is rendered limpid. We shall notice one of the cases brought forward by the author of this paper.

the quantities of opium he was obliged to take. With difficulty he came to Paris, and M. Civiale, while examining him in order to ascertain if there was a calculus, perceived that the bladder never entirely emptied itself—that its internal surface was exceedingly irritable, and that contact with the sound produced great pain. In short, there was catarrhus vesicæ of a very intense kind established. The patient was put on the most unirritating regimen—the opium was discontinued, and lavements employed. The catheter was daily introduced, so as to completely empty the bladder, and inject tepid water in its stead. In 25 days of this treatment, the contractility of the bladder was restored—the urine became limpid—the pains ceased, the patient recovered his appetite and sleep, and departed from Paris cured.

It was in the course of the various operations for breaking down the stone in the bladder, that M. Civiale became acquainted with the beneficial effects of catheterism in catarrhus vesicæ—a common accompaniment of calculus. But it is to be remarked, that this benefit was perceived long before the stone was destroyed or extracted, and, consequently the extraction was not the cause of the relief; but the operation of drawing off the urine, together with the injection of tepid water into the bladder. We are of opinion, that the suggestions of M. Civiale deserve particular attention; since the disease is equally dangerous and intractable.

Case. An old gentleman of 70 years, wrote to M. Civiale, from Germany, respecting his malady. It had commenced more than a year previously, with the usual symptoms of catarrhus vesicæ, for which he had been under some of the most eminent medical practitioners of the Continent, without benefit. The urine became more and more ropy, fetid, black, and puriform—the pains were constant—the appetite failed—the flesh wasted, and the patient was hardly able to leave his room. Constipation became very troublesome, in consequence of

XXXI.

ON THE EXTERNAL APPLICATION OF LUNAR CAUSTIC IN VARIOUS DISEASES.—
By S. HOOD, M. D.

[Analytical Physiology, 2d Edit.]

Soon after our review of Mr. Higginbottom's work appeared in No. XX of this Journal, we received a somewhat remonstrative letter from Dr. Hood, in which he claimed the merit of priority, as to the use of lunar caustic, over the author just named, and complained that we had done him a literary injustice, not only by passing his claim over unnoticed, but by giving Mr. H. the credit of originality in the application of the remedy. Not knowing where Dr. Hood's observations were to be found, we wrote to that gentleman, and was referred to his analytical physiology, the first edition of which was published in June, 1822—consequently before the first edition of Mr. Higginbottom's work saw the light. That neither of the authors ever saw the first edition of the other's book, we firmly believe,—and it is hardly necessary to say that we were entirely unacquainted with the claims of Dr. Hood, till we turned to the analytical physiology, in which we should never have dreamt of finding practical observations on the external use of nitrate of silver. We shall do Dr. Hood every justice by noticing those parts of his work in which the remedy is alluded to.

At page 14, the following observations occur.

"In patients afflicted with hemiplegia, the circulation is in general languid on the whole of the paralytic side; but even in all such cases it is easy to raise its temperature to an equality with that of the whole side, by a lunar caustic eschar, if the apoplectic symptoms have for some time disappeared. A case of this description I shall relate under the head of Muscular Irritability. As an eschar of lunar caustic, over the nerve of a paralytic limb, causes an augmentation of heat through all its ramifications, it necessarily follows, that the nervous system must contribute greatly to the generation of ani-

mal heat; but as the nervous system may be made to cease its calorific action by the abstraction of blood, animal heat must therefore be a product arising from the combined action of the blood and nervous system, and does not depend solely upon either the one or the other."

Again at page 32 we have a case connected with the present subject.

"April 6th, 1819.—Hugh Ward, private dragoon of the army of Bengal, aged 36 years, joined a detachment of the 25th cavalry, on board the Mangles transport at Madras, bound for England. He was affected with hemiplegia of the right side. His arm was shrunk and deprived of all voluntary motion; the flexor muscles of the fingers and the extensor longus pollicis were contracted, the fingers were in consequence closed, and the thumb drawn radiat; the leg and thigh were shrivelled, but he could walk a little. His disease had commenced by a stroke of apoplexy, three months previous, during which period he had remained in the Garrison Hospital at Madras, where he had been repeatedly bled and blistered.

"April 11th.—An eschar was made in the right axilla with the nitrate of silver. On the following morning, when questioned respecting the effect of the eschar, he replied, 'Shortly after the issue was made, I felt my hand open.' This being the first paralytic patient that I had treated with lunar caustic, I was not a little surprised to see him move his fingers, wrist, and fore-arm with facility. The pulsation of the radial artery was become much stronger; and a thermometer placed in either hand stood at 100 degrees, the temperature of the atmosphere between decks being 90 degrees.

"It became shortly after evident, that in future it would be necessary to make the eschar over the cervical vertebra, for the muscles of the shoulder-joint, notwithstanding the intimate connexion of its nerves with the axillary plexus, continued quite motionless.

"April 25th.—A new eschar was made over the third cervical vertebra, with the view of influencing the nervous action of both

extremities by one application. The effect was nearly as remarkable as that of the first eschar; for two hours after its application, he could move the humerus (which till now had been motionless) backwards and forwards, or hold it at a right angle with his body. The pulsation was not so strong when the eschar was in the axilla, but the temperature of the hand was still at 100 degrees. In order to exorcise his muscles, he was directed to lift weights and increase them as he acquired strength; in six weeks, the eschar being renewed at intervals of ten or twelve days, he could carry sixty pounds and write his own name.

"The cure was thus advancing slowly and successfully, but it did not keep pace with my wishes: the eschar was renewed on the back of the neck, and a fresh one made over the first lumbar vertebra. Instantly after the second application, the right arm felt numb, and the patient could not close his hand, owing, apparently, to the extensive expansion of the muscles; the pulse was strong, head-ach troublesome, and the animal heat increased. In the course of two days, he took three doses of antimonial wine; all the disagreeable symptoms disappeared, and the cure went on as usual.

"After the sloughs fell off, I tried to carry on the cure by frictions with the liniment of ammonia, but the arm remained quite stationary; cold effusions of water on the paralytic side, and preparations of cinchona had no better effect. After losing a whole month in these fruitless expedients, I resumed the application of eschars. The remainder of this case is too tedious to relate here; it is enough to state that before the patient disembarked at Greenwich, October 21st, he could carry two hundred pounds' weight and walk pretty well, considering that he had so little opportunity of exercising his limbs.

"The circumstance to which I would particularly draw the attention of the reader in this case, is the expansion of the flexor muscles of the wrist and fingers after the first eschar; the involuntary opening of the hand was the first effect from the augmentation of

the vital force by the lunar caustic, which was too obvious to escape even the patient's observation."

We find no more notice of the nitrate of silver, in the volume before us, till we come to the subject of Neuralgia, at page 101 of the work. Dr. Hood appears to entertain some peculiar opinions respecting this dire disease, and which we do not profess to clearly understand. Neuralgia, in his experience, has always resulted from the application of cold. "In neuralgia," he observes, "there is a diminution of arterial, as well as of venal expansibility; but the delicate veins of the sciatic neurilema being most easily affected, they collapse and are unable to absorb the blood from their capillaries, which become distended, causing intolerable pain of the sciatic nerve beyond the ankle, where the points of contact between the blood-vessels and divisions of this nerve become multiplied." So much for Dr. Hood's theory of the disease. We shall quote his own words as to the treatment.

"When the expansibility of the veins of the sciatic neurilema is renewed, by restoring the action of the nerve with the nitrate of silver, the disease is removed by absorption, in a few days. But if the application of the lunar caustic be so great as to effect the expansibility of both the arteries and veins, the pain is more severe for a day or two; but on the fifth or sixth day, the expansibility of the arteries sinks to its natural state, while that of the veins continues preternaturally augmented till the tenth; before which period the capillaries are usually restored to their natural state by venal absorption. It is precisely upon this principle of keeping up a corresponding degree of expansibility between the arteries and veins that stimulants are beneficial in scalds.

"Dr. Sillar, who has had extensive practice in neuralgia of the sacral extremities, informs me, that it is his opinion, if the lunar caustic could be applied in such a manner as to raise the expansibility of the veins to its healthy pitch, without influencing that of the arteries, the relief would gene-

rally be almost immediate. I feel much disposed to adopt this opinion ; in favour of which, he possesses several beautiful cases in his Journal.

"The paralytic stage of Neuralgia being merely a temporary diminution of the vital force, the patient often feels himself more than half cured when the practitioner has finished the eschar. It is of great consequence to cure neuralgia of the sacral extremities during the first three months of the inflammatory stage ; for when it has lasted more than a year, the patient is very obnoxious to relapse."

White swelling is another disease to the cure of which Dr. Hood has directed the nitrate of silver. He thinks it will hardly be denied that "white swelling of the knee-joint proceeds from defective lymphatic absorption—or, in other words, morbid contraction of the lymphatic tubes." He endeavours to place this in a clear light by the following experiment.

"When a lunar caustic eschar is applied to a white swelling of the knee-joint, the expansibility of the absorbents is renewed ; but although there be generally no inflammation except at the edge of the slough, yet the extreme arteries of the joint are also a little expanded the first three or four days. But by the twelfth day of the eschar, the swelling has subsided sometimes a full inch by absorption alone ; for lunar caustic causes scarcely any discharge of pus. The sudden abstraction of the effused fluid, in a diseased joint thus treated, cannot be supposed to result from the lymphatics alone ; the veins, doubtless, contribute material assistance ; but the principal of venal and lymphatic absorption is the same."

In an appendix, entitled "PRACTICAL OBSERVATIONS," Dr. Hood has again adverted to the external use of nitrate of silver in the cold stage of ague, which he considers to proceed from a diminution of the vital force.

"It was," says he, "from a deep impression of the truth of this conclusion that I recommended Dr. Sillar to apply externally the nitrate of silver in a case of Quartan Ague, which had lasted upwards of

twelve months, and had resisted both bark and arsenic. The eschar was made an hour before the accession of the paroxysm ; we returned to see the patient at the period when the cold stage usually ended, but it had not come on ; our entrance roused him from a comfortable sleep. It would be superfluous to descant here on this synthetic proof of Cullen's theory ; I leave it for the discussion of the contending theorists of the present day."

The last passage which we shall extract from Dr. Hood's work, and which, indeed, is the only other one which we could find on the subject of lunar caustic, will be found between pages 195 and 199, of the volume.

"HEMIPLEGIA.—In these kingdoms, the treatment of acute hemiplegia cannot be improved. Bleeding and blistering often remove this disease in the course of six weeks or two months ; but if, at the end of this period, the use of the paralytic side be not partially restored, a cure is generally considered hopeless. If, however, all the apoplectic symptoms be entirely removed, and there remain no appearance of plethora of the cerebral blood-vessels, even chronic hemiplegia may sometimes be greatly benefited, by a succession of small lunar caustic eschars. It is impossible to say, *a priori*, in what case this treatment may be successful ; but this information is very easily ascertained, by making an eschar over the course of the nerves of the paralytic arm, either in the axilla, or above the clavicle ; and if either the sense or motion of the arm be improved, just expectation may be entertained of alleviating the disease.

"The nervous system of those individuals who possess the sanguine temperament, is most easily excited by the nitrate of silver ; a circumstance which is to be borne in mind, when this substance is applied to the spine. But when hemiplegia is relieved by lunar caustic, the cure goes on as fast when the eschar is about half the size of a sixpence, as when it is much larger ; the nervous system requires a constant, but mild stimulant. The applications may be made on the back of the neck, and renewed every twelve

or fourteen days. The longer a patient has been under the operation of the nitrate of silver, the more sensible he becomes to its influence; but if the treatment be pursued in a judicious manner, and only in proper cases, no untoward circumstances can arise from its use.

"**NEURALGIA.**—The eschars for the cure of neuralgia of the sacral extremities, may vary from the size of a shilling to that of half-a-crown. The caustic must be applied over the course of the affected nerve, and rubbed till the part assumes a red colour studded with grey spots. Rest and warmth are to be strictly enforced during the cure, and a considerable time after recovery."

"The cure of white-swelling should be commenced by the application of a dozen or two of leeches to the joint, unless the patient's general health be already too weak, to bear even local bleeding. Leeches are preferable to cupping, as they do less mechanical injury to the joint. Two days after the bleeding, a lunar caustic eschar, as large as half-a-crown, must be made at one side of the patella, and the whole joint must be enveloped in a poultice, and maintained perseveringly in a state of rest. When the eschar comes away, the poultice may be discontinued, and the sore dressed with cerate or dry lint, and allowed to heal without delay. When the sore is quite skinned over, a fresh eschar may be made on the other side of the patella, and treated in every respect like the first. It is not amiss to keep a measure of the joint, to see the progress of the cure. For constitutional treatment, I generally employ alterative doses of calomel and James's powder; but I am not certain that much good is derived from these medicines. Small doses of rhubarb are sometimes beneficial. When sinuses exist, they must not be laid open, if the cure be attempted on the principle of absorption. The patient should not be allowed to walk about for some weeks after the swelling is gone, and cold must be carefully avoided. By this treatment, the patient suffers comparatively little, and the cure is almost certain, if the constitution be otherwise good,

and the disease recent. The actual cautery, blisters, and potass eschars, frequently defeat the purpose of the practitioner, from the violence of their operation. As white-swelling occurs most commonly in scrofulous constitutions, it is consequently often combined with diseases of the other organs, such as tabes mesenterica, tubercles of the lungs, rickets, and hydrocephalus; it is not, therefore, to be presumed, that by any local application, the scrofulous tendency of the animal economy can be eradicated.

"Many facts which I already possess, as well as rigorous analogy, might induce me to recommend the external application of lunar caustic in some other obstinate diseases; but I am unwilling to promulgate any opinion, of the accuracy of which my own mind is not entirely satisfied; and I venture to assert, that it presents the physiological practitioner with curative means, for which the *res medica* offers no substitute. I should even here have enlarged more on its medical properties, were it not that my friend Dr. Sillar is now occupied on this subject, and will perhaps lay his observations before the public."

We hope we have now done Dr. Hood ample justice, as to his claims of priority in the external use of lunar caustic. How far his observations interfere with or anticipate those of Mr. Higginbottom, we shall not undertake to decide. The authors were evidently unacquainted with each other's writings—and so far they tend to strengthen one another, without any necessity for a war as to priority. We shall be anxious to see the announced publication of Dr. Sillar, since we have reason to believe that the range of diseases to which the nitrate of silver may be applicable, is not yet defined. We hope, indeed, ere long, to be able to communicate to our professional brethren some very important cases where the internal use of the nitrate of silver was followed by the most beneficial effects—cases, too, in which the remedy has never before been tried.

XXXII.

CASE OF MASKED DOUBLE TERTIAN FEVER. By M. GUIBERT.

Mad. G——, aged 20 years, and of a nervous temperament, had been subject, for five weeks, to copious perspirations, which came on about three o'clock each morning, lasting till seven or eight o'clock. The urine, all this time, was high-coloured, and deposited a sediment. In all In all other respects the lady appeared in good health. The night of the 2d December passed without the usual perspiration, and Mad. G rose in the morning, complaining of great weakness and tendency to faint. She was very pallid, her voice extremely feeble—in short, she appeared in a dying state, both to herself and those around her. Nevertheless the respiration and pulse were unaffected. She took some nourishment and a glass of wine, by which she was somewhat recruited—and in the evening she was almost well. She passed a good night, and the perspiration returned at the usual hour next morning, after which, she got up and breakfasted in her usual health. At 11 o'clock on that day (3d of December) she experienced a slight malaise, which rapidly increased, and in a short time was insupportable. The most violent pains were felt in all the limbs and in the abdomen. This latter appeared to the patient to be suddenly and greatly inflated—an icy coldness seized the body, and she was soon delirious. There was next a most violent pain over the whole surface of the head, with great heat and flushing of the face. The pulse was imperceptible at the wrist, but the carotids were felt beating. Having recovered from her delirium, the former state of despondency returned, and she declared that she was dying. She therefore assembled her parents and relations around her bed, in order to take leave of them. The pulse continued imperceptible at the wrist—the extremities were of icy coldness—there were cramps and convulsive twitchings in the legs and thighs—the respiration was oppressed—the eyes rolled in their sockets—but the head continued remarkably hot, notwith-

standing the application of ices. In this state, Dr. Ratheau was called into consultation and conceived that the disease was phrenitis. Leeches were therefore applied to the head, and sinapisms to the legs. The cephalalgia diminished—the extremities became warm—sweat broke out—and, in the course of the next morning (4th December) there was a great remission, almost amounting to an intermission. At three o'clock, p. m. there was a return of cold in the extremities, and pain and heat in the head, &c. The patient demanded leeches to the temples and sinapisms to the extremities. But the symptoms continued till nine o'clock in the evening, when a remission again took place, preceded by a copious sweat, and deposition in the urine. The physicians now began to suspect that they had to deal with an intermittent fever under a somewhat masked form. They therefore administered the cinchona in injection. Next day, (6th December) there was another accession, after which, the sulphate of quinine was exhibited, and the disease was stopped.—*Journal Hebdomadaire*.

When such cases as the above are narrated in print, it appears astonishing to the reader that medical men should be so blind as to overlook the intermittent character of these complaints. But daily observation presents us with examples where these characters are far less masked than in the above case, and yet where the practitioner goes on leeching, bleeding, and purging, whenever symptoms of excitement appear. The misery occasioned by such oversights is much greater than people imagine. None but those who have suffered an attack of the "FOUR FIXES," can appreciate the wretched sensations by which it is accompanied—especially when aggravated by unnecessary depletion, employed under the mistaken idea that the disease is of an inflammatory nature. We would therefore caution practitioners against blind routinism, and beg them to remember that now, as in the days of Sydenham, diseases differ in different seasons, and consequently require a modification of treatment according to the nature of each "CONSTITUTION OF THE ATMOSPHERE."

XXXIII.

STRICTURES OF THE URETHRA.*

We have been often much surprised, that, in a disease of such frequent occurrence, and in one so dreadful in its effects as stricture, no improvements of any moment should have suggested themselves in its treatment besides that of the application of caustic.

At a time when the knife of the surgeon operates with confidence in situations and on organs for years deemed inaccessible, we were prepared to expect that a mechanical obstruction in a canal so easily examined as the urethra, should partake of the benefits of the advanced state of surgical science. We therefore took up Mr. Stafford's book with pleasing anticipations, and it is but justice to him to say, that we have not been disappointed.

The author first enters upon the consideration of strictures in general, and the only point we think it necessary to notice in this part of his work is the very proper importance he ascribes to the inflammatory foundation and tendency of almost every form of stricture.

Mr. S. then proceeds to the treatment of permanent stricture, and it is to his description of an instrument invented by him for dividing it that we would call the attention of our readers.

"The instrument for operating on permeable strictures (which for the sake of distinction I have called the double lancetted stilette) consists of a round silver graduated sheath, open at both ends, of the size of No. 10 catheter, with rather a less curve, and of a stilette which is also hollow, and open at both ends. This stilette is furnished, at one end of it, with two oblong lancets, and at the other, with a handle, resembling a button. When

the instrument is complete, the stilette fits into the sheath, so that by pushing the handle the lancets will project from the extremity of the tube, and by drawing it back they will retire into it again. When used, (the mode of doing which will be presently explained,) the instrument is passed over a wire down to the stricture, and the lancets are thrust forward on each side of it, by which the contraction is made as large as the natural size of the urethra.* The armed stilette intended to divide impermeable strictures, exactly resembles the one just described, excepting that instead of the stilette being hollow it is solid, and in the place of two there is only one lancet.

Before using the instruments, the exact distance of the stricture from the extremity of the urethra should be ascertained. In the armed catheter, which is intended to divide strictures over the wire, which serves as a guide, the wire must be introduced through the stricture first. The mode of accomplishing this is by passing the smallest possible sized catheter made to contain the wire into the bladder. The wire which is double the length of the catheter, and blunted at one end, so that it may not injure the bladder, is then pushed forward, and the catheter gradually withdrawn, by which the former is left in the canal of the urethra. The armed catheter is then passed over the wire, until its point rests against the stricture, (which is known by means of the graduation,) and being held securely in such position, the handle of the stilette is pressed gently and gradually.

As soon as any impression is made, the lancets should be allowed to retire into their sheaths, and the blunt point of the instrument urged forward. If it do not pass on the lancets may be again used as before. After the stricture is divided, the armed catheter should be withdrawn, and its place supplied by one of elastic gum of the same size.

* A series of observations on strictures of the urethra, with an account of a new method of treatment, successfully adopted in cases of the most obstinate and aggravated form of that disease. Illustrated by Cases and a Plate. 2d. Edition, by R. A. STAFFORD, M.R.C.S. &c. &c.

* This handle has hitherto been formed like a button; but I have thought it would be of advantage to have it made like two rings large enough to admit the finger and thumb, similar to the handle of a pair of scissors.

This should remain for a day or two, to prevent the re-union of the divided parts, and to preclude the possibility of extravasation of urine; and on its removal, a bougie should be passed twice in the week, or as often as may be judged necessary, for some time; and the same treatment adopted as for stricture in general. The armed stilette intended to divide impermeable strictures, must be used precisely in the same manner as the other, of course excepting the wire which cannot be introduced; and the same direction for the after treatment are necessary for both."

The objections to the use of these instruments, and more particularly of the single lancetted stilette, besides its novelty and boldness, is the apparent risk and uncertainty of its results. This, however, Mr. Stafford, in the preface to his second edition, answers most conclusively, and we cannot do better than quote his own words.

"With regard to the safety of the operation, a subject on which I am aware there exists much prejudice and doubt, even among some of the most eminent and liberal surgeons, I can only say, that I have operated more than twenty times, without the slightest dangerous symptom occurring at the time or afterwards;—that I have divided strictures in the urethra in almost every part of its course, at distances of one, three, four, five, and six inches from the orifice, at the point immediately behind the bulb, and throughout the whole membranous portion;—that some of these strictures have been half an inch, others an inch, and, in one case, two inches in length; that I operated at one time on four strictures in the same urethra, varying from one-fourth of an inch to above an inch in extent; and that in no instance was there a symptom to occasion the slightest alarm. The small quantities of blood lost from the operation was surprising, only in one case amounting to a table-spoonful, and usually not exceeding a few drops, or a tea-spoonful. This fact is so extraordinary, that unless there

had been repeated proofs, it would hardly be credited. The inflammation which has occurred has never been very great; and when it has taken place, I am much inclined to attribute it to the irritation excited by the catheter having been left in the bladder. I am the more confirmed in this opinion from the fact, that in the only case in which I omitted its introduction no sensible inflammation followed.

"The superiority of the division by the lancetted stillettes over the only plan of treatment which can be brought in competition with it—that by the caustic—is evident from the following circumstances. The pain is much less. This was admitted by every patient who had experienced both plans of treatment. In truth, it is so little, as, by their own confession, to be not worth mentioning. As a proof of this, all my patients stood during the operation, which did not usually occupy a longer time than a period varying from one to two minutes. The bleeding is not so great as what often attends the passage of a common bougie, consequently very much less than that after the application of caustic, in which the loss of half a pint or a pint of blood is no uncommon occurrence. The formation of a false passage, which in the most experienced hands will inevitably sometimes occur, from the use of caustic bougies, has never resulted in any case where I have employed the instruments. The last, and perhaps principal proof of superiority, however, of this plan of treatment is, the shortness of time occupied, and the rapidity of the cure. The length of time necessary for the common method, of course varies indefinitely:—three months may be stated a short period, and it often extends to one or two years, with a great chance of the recurrence of the disease in a more aggravated form. On the contrary, the longest time which it has been found necessary to pass a bougie after dividing the stricture with the lancetted stilette, has never exceeded six weeks; and in those cases it was passed merely to satisfy myself and the patient of the non-existence of the disease. Usually a large sized bougie has been introduced immediately after the operation; and the cases have not required attendance more than three weeks or a month."

When we say that this statement is borne out by cases not selected, but, according to Mr. Stafford's assertion, simply laid before the medical public in the order in which they have occurred, we think that we should not have done our duty to our surgical readers if we had passed over this work without notice.

XXXIV.

MR. WARBURTON'S BILL.

An Act so deeply affecting the interests of medical science, deserves a permanent record in our pages; but, like all acts, it is so overloaded with words, that we shall be able to give the substance of it in a small compass.

The first clause describes the penalty for disinterring or stealing bodies on the old plan—and that is, imprisonment in the common jail or house of correction, with or without hard labour, for a term not exceeding, for the first offence, *six months*, for the second, *two years*.

The second clause appoints a commission, under the secretary of state, consisting of not fewer than seven persons, for licensing schools of anatomy, the majority of which commission shall be non-professional persons. These commissioners are to hold quarterly meetings to grant licenses—and the fees of licenses are to go to the liquidation of the expenses of the act. These commissioners are to be converted from time to time into visitors or inspectors, to inquire into the state of any school or place of dissection, and to report thereon. No commissioner or visitor shall be a teacher of anatomy or connected with a dissecting-room. These visitors shall have the power to summon before them any person connected with anatomical tuition, and examine them on oath, "touching any matters relating to the execution of this act," under a penalty of fifty pounds for non-compliance. The commissioners in question, are empow-

ered to make a code of rules for the regulation of anatomical schools. The following is the marrow of the Act.

"And be it Enacted, That it shall be lawful for any party to whom a License shall have been granted by the said Commissioners, or to any person acting by authority of such party, so long as such license shall remain in force under such regulations as may be prescribed by the rules and orders of the said Commissioners, to receive from or by order of any of the persons hereinafter authorized to deliver up the same, any such human body as is hereinafter permitted to be delivered up, and to remove such body from the place of delivery to the place appointed for dissection in the license to such party granted, and there to dissect the same.

And be it further Enacted, That when any person shall die during imprisonment in any prison, or shall die in any hospital or workhouse, and the body of such person shall not be claimed as hereinafter mentioned, or the disposition of such body shall not be otherwise provided for by law, it shall be lawful for the party having the custody of the person so dying in prison as aforesaid, and for the party having the care of the person dying in any hospital or workhouse as aforesaid, to deliver up the body of such person to any party duly licensed under this Act, or to the authorized agent of such party: Provided always, That if within *Seventy-two* hours after the death of any such person as aforesaid, any person shall attend to remove the body, and there shall be sufficient reason to believe that such body if delivered to such person, will be by him duly buried and not delivered up for dissection, the same shall be delivered up to the person so attending as aforesaid: And provided also, That if within the said period of *Seventy-two* hours, any person representing himself to be a relative of the deceased, shall request that such body may not be delivered up to be dissected, and there is sufficient reason to believe that the person making such request is really a relative of the deceased, and no nearer relative has made any request to the contrary, such body shall not be delivered up for dissection.

"Provided always, and be it further Enacted, That nothing herein contained

shall prevent the due holding of inquests by the coroners, but that in all cases where a coroner's inquest may be necessary, no body shall be delivered up by virtue of this Act, until such inquest has been held.

" And be it Enacted, That if any person shall, during his life time, by any instrument in writing, attested by two or more witnesses, declare that he is desirous that his body after death may be delivered up for dissection, it shall be lawful for the executors, administrators or next of kin of every such person, to deliver up, if they shall think fit, the body of such person for dissection; provided that *Three* days previous to such delivery, they shall have given notice to the overseers of the parish in which such person died, of their intention so to deliver up the body, and shall have sent to such overseers, together with such notice, a copy of the instrument, declaratory of the desire of the deceased, and a certificate signed by *Three* or more physicians, surgeons or apothecaries, that the deceased came fairly by his death.

" And be it Enacted, That if any case not herein before provided, any party shall be desirous of delivering up, and any party receiving, any human body for dissection, or if any party, at any other place than a licensed Dissecting School, shall be desirous of dissecting, it shall be lawful for the said Commissioners, if they shall think fit, to grant a special License for any such purpose as aforesaid, and to charge for such License any sum not exceeding *Two pounds*.

" And be it Enacted, That every party receiving any human body for dissection, shall demand and receive, together with the body, a Certificate, stating at what hour, on what day, in what month and in what year, by whom or by whose authority, and to whom or on whose account the body was delivered up, the date and place of death, the sex and (as far as it is known at the time) the christian and surname, parents, age, trade or occupation, and last place of abode of such person; and the party delivering up the body shall deliver and sign such certificate, and the party receiving the body shall enter, or cause

to be entered, a copy of every such certificate in a book to be kept by him for that purpose; and every party licensed under this Act shall produce such a book, or a copy thereof, or extract therefrom, whenever required to do so by the said Commissioners.

" And be it Enacted, That every party licensed under this Act, shall, after dissection, at his own cost enclose the remains of every body by him or by his authority dissected, in a separate coffin, and shall at his own cost within *Twenty-one* days after the receipt of such body, decently bury or cause to be buried the remains of the same, with the rites of Christian burial, or with such other funeral rites and ceremonies as accord with the religious creed of the deceased, or are customary in that part of the kingdom where such burial shall take place, and shall cause entry to be made in the parish register of the parish where such burial shall take place, of the name age and abode of the person buried, and of the date of the burial, and of the name of the minister officiating thereat.

" And be it Enacted, That if at any time the said Commissioners shall recommend to his Majesty's Principal Secretary of State for the Home Department for the time being, that any license granted by them to any party by virtue of this Act, should, before the expiration of such License be suspended for a time or revoked altogether, or upon its expiration should not be renewed, it shall be lawful for such Secretary of State, by an instrument under his hand and seal to be transmitted to such party, to suspend for a time or to revoke altogether such License, or to prohibit such party from having the same renewed: Provided always, That a written notice of such recommendation shall be sent by the clerk of the said Commissioners to such party *Fourteen* days at least before the transmission thereof to such Secretary of State.

And be it Enacted, That if any person after the *First day of October* in the present year, shall keep a school for the dissection of human bodies, or shall knowingly permit dissection to be taught or practised in any place to him

belonging, without having obtained a License for that purpose, in the manner directed by this Act, every person so offending shall forfeit a sum not exceeding *One hundred pounds*.

And be it Enacted, That if any person shall, after the day last mentioned, knowingly receive, remove, deposit or possess any human body, with a view to dissection, without a License from the said Commissioners, or without the authority of a person having such a License, every person so offending shall forfeit a sum not exceeding *Fifty pounds*.

“ And be it Enacted, That if any person shall, after the day last mentioned, dissect a human body at any place not set forth in any License in force, and by the said Commissioners granted, every person so offending shall forfeit a sum not exceeding *Fifty pounds*; provided, that nothing herein contained shall be understood to extend to an examination post mortem of any human body required to be made by legal authority or permitted to be made by the relatives of any deceased person, or in any hospital or hospitals, such examination being made at the place where the person died.

“ And be it Enacted, That if any party licensed by the said Commissioners, or any person acting by authority of such party, shall, after the day last mentioned, knowingly receive, remove or deliver up any human body at any other time than shall be specified in the rules and orders of the said Commissioners, or shall receive any human body from any person not authorized by virtue of this Act to deliver human bodies up, or shall remove or deliver any human body to or receive any human body at any other place than that set forth in the License to such party granted, or shall on any occasion wantonly expose any human subject to public view, or shall receive any human body without such a certificate as aforesaid, every such offender shall forfeit a sum not exceeding *Fifty pounds*.

“ And be it Enacted, That if any party licensed by the said Commissioners shall, after the day last mentioned, on receiving

any human body, neglect to register the certificate by him hereinbefore directed to be taken, or shall wilfully make any false entry in such register, or shall neglect or refuse to produce to the said Commissioners at their desire the book of registry hereinbefore directed to be kept by such party, or a copy thereof or extract therefrom, or shall, on burying the remains of any such body, wilfully neglect to register such burial in the register of the parish where such burial shall take place in the manner hereinbefore directed, or shall wilfully make or cause to be made any false entry of such burial in any parish register, every party so offending shall forfeit a sum not exceeding *Fifty pounds*.

“ And be it Enacted, that if any party licensed by the said Commissioners shall, after the day last mentioned, omit to bury in the manner hereinbefore directed the remains of any human body by him or by his authority received for dissection or dissected, every such offender shall forfeit a sum not exceeding *Fifty pounds*.

“ And be it Enacted, That from and after the day last mentioned, if any person having authority by virtue of this Act to deliver up human bodies for dissection, shall deliver such up to any party not licensed to receive bodies for dissection, every such person shall forfeit a sum not exceeding *Twenty pounds*.

“ And be it Enacted, that if any person duly summoned to appear as a witness in any proceeding under this Act shall wilfully and without sufficient cause neglect or refuse to attend, or if he shall attend and shall refuse to be sworn to give evidence, every such person shall for every such offence forfeit a sum not exceeding *Fifty pounds*.

“ And be it Enacted, That it shall and may be lawful for the said Commissioners, in the name of their clerk, or for any other person or persons, to sue for the penalties and forfeitures granted by this Act.

“ And be it Enacted, that all monies to be received for any Licenses to be granted by virtue of this Act, shall be retained by the clerk to the said Commissioners, and from such monies any expenses that may be incurred in the execution of this Act shall

upon the order of the said Commissioners to be paid, and such clerk of the Commissioners shall keep a true account of all such receipts and disbursements, and shall at all times exhibit such account to the said Commissioners when required by them so to do, and shall make up such account to the *Thirtieth* day of *June* in each year, and such yearly account, when examined and approved by the said Commissioners, shall be signed by *Three* or more of them, and shall then be transmitted by such clerk to the Lords Commissioners of His Majesty's Treasury, who shall thereupon, if they shall think fit, direct the balance, if any, that maybe in the hands of such clerk to be paid into the Exchequer to the account of the Consolidated Fund of the United Kingdom of Great Britain and Ireland; *but if there shall be a balance due to such clerk it shall be lawful for the Lords Commissioners of His Majesty's Treasury, or Three or more of them, to cause the requisite sum to be issued and paid from time to time, out of any money in the Exchequer applicable to the growing produce of the Consolidated Fund.*"

The remainder of the Act relates to the recovery of penalties, and is quite of a legal or technical nature, devoid of interest.

We have understood that the Act, as above sketched out, does not give satisfaction to those connected with anatomical tuition.—With the exception of one or two clauses,

we really see but little ground for dissatisfaction. The great difficulty will be in the Christian burial vouchsafed for the disjecta membra of the dissected bodies. It will be almost as puzzling an operation to preserve the identity of individuals, on sepulture after dissection, as at the final resurrection! Each identification will require the interposition of a miracle! That this clause is a placebo for popular prejudice there can be no doubt—and that it will give origin to much farcical ceremony, more beneficial to the stomachs of the undertaker, Parson, and grave-digger, than to the souls of the dead, there can be as little doubt among all thinking creatures. Its worst effects will be the tax on the student. No doubt, contractors will be found to undertake this ceremony at a small expense.

That some difficulties will be thrown in the way of the beneficial operation of this Act, by the "brief authorities," namely, the parish officers, church-wardens, overseers, et hoc genus omne, is to be reasonably expected. But still we shall have great occasion to be grateful to the legislature—and more especially to Mr. Warburton and Mr. Peel—for an enactment which opens the door to almost every facility that can be desired for the prosecution of anatomical study.

MEDICAL JURISPRUDENCE.

XXXV.

I. REPORT OF THE TRIAL OF JONATHAN MARTIN FOR SETTING FIRE TO THE YORK MINSTER. London, 8vo. pp. 92.

II. THE LIFE OF JONATHAN MARTIN, OF DARLINGTON, TANNER, WRITTEN BY HIMSELF. 8vo., pp. 50, 3d Edit. Lincoln, 1828.

The destruction of the venerable Cathedral of York, by fire, is fresh in the memory of all our readers, and the protracted trial of

the incendiary excited considerable interest in the public mind. The initiatory examinations of the supposed culprit—and we admit the actual perpetrator, left not a doubt in the mind of every medical man of any experience or knowledge in his profession, that Martin was as decided a monomaniac as ever entered the walls of Bedlam.—If there was no other testimony than the second publication at the head of this article, all doubt would vanish. The life of Martin, written by himself, is really a curiosity, and contains in every page—we might say in every line, intrinsic proof of disordered intellect. We are glad to observe, by refer

ence to the report of the trial, that the professional witnesses, Mr. Caleb Williams and Dr. Baldwin Wake, of York, proffered a chain of evidence, under a close, and sometimes a galling cross-examination, which does them infinite credit. We cannot better express our entire approbation of the sentiments and conclusions contained in the evidences of Mr. Williams and Dr. Baldwin Wake, than by giving them a permanent record in our Journal. It is a small but an honourable prize conscientiously adjudicated to merit. Would that we had more frequent occasions for expressing our approbation of medical evidence in courts of justice!

"CALEB WILLIAMS, ON HIS AFFIRMATION.
—*Examined by Mr. Sergeant Jones.*

Q. You are a surgeon in the city of York, I believe?—A. Yes.

Q. Are you one of the medical attendants of the Lunatic Asylum, called the Friend's Retreat?—A. Yes.

Q. Have you been conversant on the subject of the diseases of lunatics?

A. Yes, for five or six years.

Q. When did you first of all see the prisoner at the bar, Martin, so as to observe his state of mind?

A. On the 21st of the present month.

Q. How often have you seen him since that time?

A. Daily, with the exception of two days.

Q. In the first place, I would ask you, what appears to you to be the state of his mind?—A. I consider him to be what is denominated a "*monomaniac*."

Baron Hullock. Just state for the information of the jury, what that is.

Witness. It is a species of insanity, in which the delusion is confined to one idea only, or to one train of ideas.

Q. Is that the expression, that is well known and commonly used in medical treatises and discussions?—A. Yes.

Q. It is opposed to delirium or delusion, on all subjects generally?—A. Yes.

Q. Then, first of all I ask you, whether you have taken pains to satisfy yourself, whether the symptoms or appearances of his insanity are feigned or bona fide?

A. I believe they are bona fide really.

Q. Have you had any discourse with him on the subject of dreams?—A. I have.

Q. What is your impression with regard to the influence of dreams upon the mind of the prisoner?

A. I believe his dreams to have more influence over him than they would have over a person of sound mind.

Q. To what subject do the dreams of the prisoner apply?

A. Chiefly to the subject of religion.

Q. Did you also attend to his bodily strength?—A. I did.

Q. Are there certain symptoms connected with his bodily strength, that afford any influence with regard to the state of his mind?—A. There are.

Q. Did the appearances which you witnessed with regard to the state of his body, concur or run differently with his state of mind; what is your opinion with regard to the state of his mind, as derived from those appearances?

A. They confirmed my opinion with regard to the state of his mind.

Q. How was the eye?—A. The eye was red.

Q. I need hardly ask you, whether persons acquainted with medical subjects of this sort, look to the eye of the patient as a test of their state of mind?

A. The eye is frequently observed certainly, and the countenance generally.

Q. How was he as to his pulse?

A. It was full, hard, strong, and quicker than natural.

Q. Is that state of the pulse the one commonly found in instances of monomania?

A. Yes, during the period of excitement it is common.

Q. Do you think him a person that it would be safe to trust to go abroad?

A. I think the instances that have been given prove that it is not safe for him to go abroad.

Q. Then you are of opinion that he is insane?—A. Yes.

Q. And that his madness is upon one particular subject, or upon one train of ideas?—A. Yes.

Q. Are there many patients or persons in confinement who are labouring under monomania, and who have no other complaint?

A. Yes, there are many; I have opportunities of seeing many every week.

Baron Hullock. Were it otherwise he would not be denominated a monomaniac.

Cross-examined by Mr. Alderson.

Q. Are not those monomaniacs capable of distinguishing right from wrong?

A. Not upon subjects upon which they are deluded.

Q. But upon general subjects ?

A. Upon subjects perfectly unconnected with their delusion they have the power of judging of right from wrong.

Q. Upon those subjects upon which they are capable of so judging, they act like other persons capable of judging right from wrong ?—A. Yes, frequently.

Q. Do they avoid dangers consequent upon their actions ?

A. Frequently.

Q. Do they run away after having done a thing that they know is wrong ?

A. Very commonly.

Q. Do they adopt skilful means to avoid the consequence of such an act ?

A. They are very cunning in escaping punishment.

Q. And also very cunning in pursuing the means to accomplish an act ?

A. Yes, the same.

Q. You don't consider that that shews that they know, beforehand, they are doing a wrong act ?—A. No.

Q. In what way would they shew they were doing a wrong act : would they do it by staying, if they did know they had done a wrong act. In what way do you, as a medical man, expect that insane persons would shew it ?—A. I should think that an insane man would endeavour to avoid being detected.

Q. Then it is possible for a person, being an insane man, to do an act which he knows will be followed by punishment, and consequently endeavour to avoid it ?—A. It is.

Q. Does not the fear of punishment deter them ?

A. I believe the mind is so absorbed with the delusive idea, that no other idea occupies their attention.

Q. Do you not know, that persons who are insane are prevented doing such acts through fear of punishment ?—A. No ; that will not operate so as to prevent the delusion coming on.

Q. What, in your judgment, is the peculiar subject upon which this person, the prisoner, is to be looked upon as being mad ?—A. An undue reliance upon his dreams, believing they are revelations of the divine will, directing him to perform certain acts.

Q. Has he told you that that is so ?—A. Yes.

Q. Have you any other reason for knowing it, than that he has told you so ?—A. No.

Q. Had you any other conversations with him before ?—A. No.

Q. When did you first see him ?

A. On the 21st of this month.

Q. That was the first day of the assizes ?—A. Yes.

Q. All your interviews have been with him since the Judges came to town ?—A. Yes.

Q. Since that, he has been telling you of his dreams ?—A. Yes.

Re-examined by Mr. Brougham.

Q. You say you have had considerable experience in regard to the diseases of insane persons, from your attending a Lunatic Asylum ?—A. Yes.

Q. Do you consider, judging from your experience, that the conduct and appearance of the prisoner could have been put on with the view of deceiving you, or that it was otherwise than real ?

A. I don't think it could.

DR. BALDWIN WAKE, SWORN.—*Examined by Mr. Brougham.*

Q. You are a physician in York ?—A. Yes.

Q. Have you had experience of lunatic patients ?—A. Yes.

Q. Are you physician to a lunatic establishment ?—A. Yes, I am ; to the York Lunatic Asylum.

Q. How long have you been so ?

A. For thirteen years and upwards.

Q. Have you seen the prisoner lately ?

A. Since the 21st of this month, and also about three or four weeks ago, without his being aware that I did see him. I looked through the window of Mr. Kilby's apartment.

Q. Have you paid attention to his case lately ?

A. Yes, I devoted an hour or two at a time, and investigated his case as carefully as time would allow me.

Q. During the visits you have made, and you have seen him almost daily, you have investigated his case ?

A. Almost daily ; and I have seen him occasionally twice a day.

Q. Now, judging from what you have seen of him, and applying the result of your own experience in such diseases to him, is it your opinion that he is of sound or unsound mind ?—A. Of unsound mind, most undoubtedly.

Q. Of what description is the insanity he labours under ?—A. *Monomania*.

Q. Is that a frequent species of the complaint ?

A. Very frequent ; there are a great many varieties.

Q. But the characteristic of the whole of them is, that of being under a delusion on one particular point, and more or less sane upon other points ?

A. Yes, sir ; that they have sanity upon most other points.

Q. Did you observe any particular bodily infirmity about him ?—A. Yes.

Q. Had you occasion to observe his head ?—A. I had.

Q. What did you observe in regard to it ?

A. I observed that it has the appearance, on the frontal bone, as if he had had a wound or accident, and upon enquiring as to it, he told me a long detail of his burning the Minster, nearly as has been stated before ; and in doing so, I observed that he suddenly put his hand to his head, and seemed quite lost for some time ; that attracted my attention more particularly towards his head, and when he was apparently sufficiently recovered to answer questions—I asked him what was the matter, and he said, “when I talk much, a pain strikes me at that place where I had received a wound.”

Q. Did you, in consequence of that observation, examine his head more particularly ?—A. Yes, I did.

Q. What was the result of your examination ?

A. I found there was the mark of an injury there, and I inquired into the particulars of it.

Q. I shall not trouble you to give a minute description of it, but you say there was there apparently the remains of an injury ?—A. Yes.

Q. Did you feel the mark of that injury with your hand ?—A. I did.

Q. What effect did the pressure of your hand make upon it ?

A. Not much effect ; but I found that there seemed to be some little depression upon that part, and I inquired something further about it.

Q. I shall not ask you what he told you ; did you make an inquiry as to his appetite ?

A. I did, and I found that he had a most voracious appetite. I went down in the cell when his wife came to him with his dinner, and I observed that he eat in the most voracious manner a beef steak pie, and he devoured it in a short time, although it appeared to be as much as any three men could have eaten.

Q. Is that a symptom frequently attending the species of insanity you describe ?

A. It is an attendant symptom upon insanity generally, where the health is at the same time good. There is generally a voracious appetite, and he devours his food in a particular manner.

Q. Did you observe his eye ?—A. I did.

Q. What appearance had that ?

A. It was glassy, and when he was excited, it betrayed a great deal of *maniacal* expression, or appearance in it, which would strike any person accustomed to those diseased patients, so that they cannot mistake the nature of their complaint.

Q. Could those bodily symptoms that you describe, have been put on for the purpose of deceiving you ?—A. I presume not.

Q. Don't you believe they could not ?

A. I do firmly believe they could not ; it is a mistake when I use the other expression, that I presumed it could not be assumed.

Q. Had the pulse any thing to do with discovering the state of the patient ?—A. The pulse was uncommonly hard, and not very frequent. I examined the state of the heart, but I found the action of the heart did not account for the strong pulse, I therefore attributed it to his delusion, and to the state of his mind. That symptom is frequently attendant upon insanity, when there is a restlessness and excitement.

Q. Is an inability to remain at rest, one of the symptoms ?

A. I observed him when he did not know it, and perceived him walk up and down, apparently five or six miles an hour ; and that was his usual manner.

Q. Was that observed frequently ?—A. Yes.

Q. From the opportunities you had of seeing him, upon those occasions you speak of have you any doubt that he is a person of unsound mind ?—A. I have no doubt of it.

Q. Is he a person capable of distinguishing right from wrong ?

A. Upon the subject of his delusion, I think not. I could state my reason for drawing that conclusion, if necessary, from another case that bears upon this one.

Q. No, I don't ask you that, but I may ask you, if a person, who has a delusion upon one particular subject, and is, upon that subject, incapable of distinguishing right from wrong, be capable, upon other subjects, of distinguishing right from wrong ?

A. Generally, they can do so upon other subjects.

Q. Could you upon other subjects, rely, even with certainty, on their distinguishing right from wrong?—A. Yes.

Q. Upon subjects generally, excluding those to which this delusion applies, I ask you, are insane persons under the influence of fear?—A. I think upon maniacs in general, fear operates very powerfully.

Q. And will they endeavour to effect their escape, after they have done a wrong act?—A. Yes, they will endeavour to elude punishment.

Q. May a person labouring under this species of disease, called "monomania," be incapable of distinguishing right from wrong, and then doing that which we should call wrong, be able afterwards to know that they are likely to be punished for it?

A. I think that when that delusion is frequently excited, a maniac does not know right from wrong; but then, after he has committed a crime, he may become sensible of his danger. I have known many instances of monomania, and I know that at certain times they have lucid intervals, and will be conscious of the error they have committed, and the delusion under which they labour; of this I know a striking case, if it were necessary upon this occasion to state it.

Baron Hullock summoned up in a long, elaborate, and able manner. The fact of Martin's having set fire to the Minster was as clear as the sun at noon day. But the question of culpability—that is to say, of sanity, or insanity, rested entirely, or almost entirely, on the medical witnesses. The jury instantly acquitted him, on the plea of insanity—and every man of the slightest medical information, must acquiesce in the decision. We tender our thanks and the profession of sincere esteem to Dr. Baldwin Wake and Mr. Williams.

XXXVI.

ROYAL COLLEGE OF SURGEONS.

The annual lectures to be delivered in the theatre of the College by Professors Guthrie and Mayo, began on the 10th of March, when Mr. Guthrie delivered his

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introductory lecture. The first part he read, in order, that no misapprehension might arise, as to whether the opinions expressed were his own, or those of any of his colleagues in the council. The latter was spoken, and without notes. The object of the written part was to urge the importance of anatomy and physiology, and inculcate the necessity for its cultivation on broader basis, on a more extensive scale than that which is usually adopted. The following sentences seem to explain his views.

"In detaining you a short time on the subject of anatomy, it is not that I conceive you are unmindful of its importance, that you have not formed a true estimate of its value, that you are not prepared to assist in its cultivation to the extent of your ability; I am satisfied that each and every one I have the honour to address, is filled with admiration at the beautiful mechanism, the truths it discloses, the grand reflexions to which it leads, the submissive humility it inculcates, in demonstrating, as it were, with mathematical precision our nothingness, and the divine nature of the Supreme Being to whom we owe our formation."

"The development of truths of this nature, the aggregation of them so as to lead to every thing like system, is scarcely to be accomplished by the efforts of individuals, unless assisted by the influence, by the power of many. Some few individuals have arisen, who have made anatomy in its most comprehensive meaning, not only their peculiar study, but their pleasure, their amusement, their principal gratification. These men are an honour to the period in which they lived. They have proved inestimable benefactors of mankind, and have obtained for themselves that immortality of fame, which Nature in her benevolence, had denied them of life. We have one great instance of this in the late Mr. Hunter, whose museum now adorns the walls of this College, forming at once their ornament and the monument of its collector:" and afterwards—"It is anatomy in its comprehensive sense, including every living thing on the earth, in the air, or

under the waters, nay, closed up in the bowels of the earth, that is wanted, that I am advocating. It remains for some gifted, some powerful body (I would fain hope for this College) to institute such inquiries. Whenever it is done, on the great scale commensurate with the magnitude of the undertaking, it will be an act worthy of a scientific institution, and if a part of the funds, which have been silently accumulating for years, shall be devoted to such a purpose, then shall we all honour the prudence and foresight of those under whose management and care they had been collected. We shall respect the living, who have been unjustly defamed, whilst we regard with reverence those who are no more, but whose last wishes on earth were for the improvement of the art and science of surgery, and for the honour and prosperity of this College."

When Mr. Guthrie closed his book and addressed the President, he said his object was to excite, as Professor of Surgery, an earnest attention to its advancement; to show, from the early history of the science, the means by which it had attained its present rank; what was wanting to add to it. After having gone through its rise and progress, he dwelt at length upon its present state, and called upon those who had raised themselves to the highest honours of the profession to go a step farther, to imitate Pitard, Vavasom and others of the olden time, who made their own advancement, their own interest, yield to that of their profession; who preferred its glory to their own. In the present day, he said, there was no profession, there was even no trade that was not represented in the House of Commons,

save physic and surgery:—He earnestly inquired what there was so withering in the study of these sciences, which rendered a man less capable of bearing his part in public affairs, than if he had applied to the law, or to dealing in money, corn, bricks, leather, or any manufacture in which so many very eminent men were engaged. Surely, he said, physic and surgery could each find one man, whose locks were bleached by the hoar of sixty winters, rich in the wordly sense of the word, richer in the honours of the profession and in the good will of their contemporaries, who might, at a period like this, when it was attempted even to make laws for the profession, without its sanction, without its participation, stand forth as its champions.

We believe Mr. Guthrie here alluded to Sir H. Hallford, and Sir A. Cooper, and we cannot but agree with him that they ought to be in Parliament.

We cannot close this short account of these lectures, founded by Arris and Gall, without expressing our satisfaction at the manner in which they have been delivered. Mr. Guthrie possesses many excellent qualifications for a lecturer—a great command of language, with a clear and perspicuous mode of stating his subject; and however we might have expected that his practical experience would have afforded him abundant matter for practical lectures, we were not prepared to find that his professional attainments were so broad and deep; we must, therefore, congratulate the College in having selected one of their own council, who bids fair to uphold the high character which, from its first institution, it has derived from its anatomical and surgical professors.

CLINICAL REVIEW.

XXXVII.

ROYAL INFIRM. OF EDINBURGH.*

SIMPLE AND COMPOUND FRACTURES.

It gives us much pleasure to meet Dr.

* Clinical Lecture delivered by Dr. Ballingall, Feb. 26, 1829.

Ballingall again on the tapis, to learn the results of his experience, and peruse his instructive and interesting observations. We believe we were the first to discover the merit of these lectures, and we gave them a publicity and extent of circulation which they never could attain in their native form. At pre-

sent, we are gratified to find that our contemporaries have also appreciated their value, and transferred them, in no niggard fashion, to their pages. This is as it should be, and we wish, in all sincerity, that more provincial surgeons than our friend Dr. Ballingall would strive to earn the same honourable meed of approbation. It was said, we believe by Mr. Brougham, that the rising generation wear their spurs at their toes, and woe to the posterior parts of those who are lagging before them. Would to Heaven that the spur was applied now and then to our country surgeons, who ought to be rather in the van than the rear of the present intellectual march. But to our analysis; and first we shall notice the subject of fractures, which, indeed, forms the commencement of the present lecture. Dr. Ballingall shall speak for himself.

"Of these acute cases, the fractures of the limbs have, upon the present, as upon former occasions, constituted a large majority; of simple fractures I find that there have been treated, on my side of the House, twenty-six cases, all of which have either terminated successfully, or are in the progress of cure, with the exception of that of *William Fernie*, æt. 62, who was admitted on the 3d of January with a fracture of the neck of the femur. This man was brought from Kinglassie in Fifeshire, where he had met with the accident about ten days before. His limb was immediately placed in Boyer's splint, and was extended to the same length as its fellow of the opposite side; but although the old man complained of no inconvenience from the apparatus, it was soon perceived that ulceration had taken place on the sacrum to a considerable extent. This induced me to remove the splint and to place the patient on his side; here again a gangrenous spot appeared over the trochanter of the right thigh, and the patient was subsequently turned to the opposite side, my object now being to obviate the effects of pressure, and the extension of the gangrene, rather than to look for any successful treatment of the fracture. The ulceration, however continued to extend, and the patient's strength to sink, notwithstanding the liberal exhibition of animal food, porter, and wine,

until the 4th of February, when he died, six weeks after the receipt of the injury; and, I regret to say that the body was immediately removed to Fife without affording us an opportunity of examining the state of the broken bone.

"In the cursory observations which I have had occasion to lay before you on the subject of fractures, I have always inculcated the necessity of giving your attention to the general principles on which fractures are treated, observing that the variety of these accidents is so endless as to render it a matter of impossibility to be previously acquainted with the specialities of each individual case. My views of the treatment of fractures of the neck of the femur, I explained to you from one of my printed Lectures, and I would now only observe, that the result of the foregoing, as well as of some other cases of the same kind which I have witnessed, has made me lately disposed to question whether we would not do well, in many cases of fracture of the neck of the thigh-bone to be satisfied with the simple treatment recommended by Sir A. Cooper; to place the limb in a relaxed position with a folded pillow under the knee-joint, and to take our chance of such a cure as nature may be pleased to afford us, rather than by confining the patient in a coercive apparatus to run the risk of inducing ulceration or gangrene, the progress of which, in advanced life, or in broken constitutions, it is so little within our power to control." 4.

Three cases only of compound fracture occurred during the session, and of these but one deserves notice here.

Case. Alexander Kerr, ætatis 20, was overturned in a cart on the morning of the 6th of October, when the edge of the vehicle, the whole weight of the horse resting on the shaft, fell against the lower part of his leg. At the time of his admission into the Royal Infirmary the whole left leg was tense, much swelled, and painful. About an inch and a half above the ankle was a

small wound over the anterior surface of the tibia, and the skin above the outer malleolus was very much contused and fluctuated from the effusion of blood beneath it. When the foot was moved an indistinct crepitus was felt. We cannot say that the Doctor's description is particularly lucid, for no one on reading it can venture to pronounce either where or what the fracture was. However the limb was placed upon "M'Intyre's splint," and the spirit lotion applied. At night he took an anodyne, castor oil next morning, and an antimonial solution was administered internally from time to time. On the 8th we find the following report.

"Slept ill; pulse 108, very full and strong; bowels once relieved; tongue slightly furred; skin upon the outer side of the leg is evidently gangrenous, and that upon the inner side considerably discoloured. An incision was made through the former, some serum was discharged, but the wound bled very little. He was bled to twenty ounces." At 11, P. M. the pulse was 132; the "gangrene" did not appear to have spread upon the outside, but the skin on the inside was more extensively discoloured. He was bled again to 3x. after which he slept a little, and on the 9th was improved. The pulse was 112, and not so strong; the skin was hot; the thirst less; the bowels once relieved. The "gangrene" had not spread at all upon the outside of the limb, and there was some healthy purulent discharge from the incision; on the inside the gangrene had extended a little. The last blood drawn was neither buffed nor cupped. The fermenting poultice was applied to the leg and the antimonial solution continued. The feverish symptoms now subsided, and on the 11th the pulse was 100; skin cool; tongue less furred; appetite returning; "the gangrene had ceased to spread, but the sloughs had not begun to separate."

"It now became obvious that we should not be compelled to amputate by the extension of the gangrene, but when the sloughs came to be detached and both the tibia and fibula were laid bare to a considerable extent, with a copious purulent discharge, and

rather profuse sweats, I was greatly inclined to amputate the leg; and had not some of my colleagues entertained a more favourable opinion of the case than I did, it is probable the operation would have been proposed to him.

"There was great encouragement however to persevere in our attempts at a cure, from the prosperous state of the man's general health; as well as from his youth, and apparently vigorous habit. The extensive sore which nearly surrounded the lower part of the limb became covered with florid and healthy granulations; the discharge rapidly diminished, and on the 21st December he was discharged cured, a trifling exfoliation having previously taken place from the fore part of the tibia."

We have often been surprised at observing the very loose way in which surgeons employ the terms mortification and gangrene. If a leg after an accident begins to be blackish and discoloured, and especially if vesications filled with dark modena-coloured serum form upon it, the case is set down instantaneously as a case of gangrene. Now the fact is, that a very large proportion of this kind of cases are neither gangrene, nor likely, under proper treatment, to end in it, and therefore it is clearly a dangerous error to consider them as such. A man receives a simple or a compound fracture, perhaps of no great severity—the limb is put up in the apparatus determined on, whatever it may be—and for one or two days would seem to be doing tolerably well. About this time, however, a good deal of pain is experienced in the limb, and on opening the apparatus, the leg (for we will suppose the tibia to have been broken in its shaft) is discoloured in patches of brown and yellow, from the ankle to the knee. In one or more parts, generally on the fore part of the leg, the cuticle is raised in vesications, filled with serum of port wine colour, and on breaking these the cutis itself looks mahogany-coloured, or perhaps of its natural tint below. The patient all this time may be little disturbed in his general health, or instead of the prostration consequent on mortification,

may have a full bounding pulse, a hot flushed skin, a loaded tongue, in fact, the genuine symptoms of excitement.

I have had occasion to treat in this house, and are not co-incidental with my experience of them in other situations.

Such a case as this may appear to a person who has not seen many of the same description, as one that is fraught with imminent peril, in fact, as a case of traumatic gangrene. But indeed it is not of so dangerous a character, and under attentive and soothing local treatment, with free depletive measures, if the case has been one of the sthenic character, the skin which has perished will come away, the leg will recover itself, and all will do well. We cannot help thinking that the case recorded by Dr. Ballingall as one of traumatic gangrene, approached much nearer to that which we have described, than to what he has considered and termed it. We see, for our own parts, no evidence of gangrene in that particular instance; the limb was not cold; it did not die; the sloughing was superficial; the pulse was not weak, rapid, or intermitting, but full and strong; the recovery from the gangrenous state was speedy, and that under *bleeding* and depletory measures; in short, it was not a case of mortification requiring amputation, but an instance of inflammation set up in the skin, and perhaps the cellular membrane at the seat of injury, ending in superficial sloughing, but implicating generally neither the limb nor the constitution. In the following remarks of Dr. Ballingall, we, for the most part, perfectly agree, and we are sure that those who have seen most of these bad accidents, will deprecate with him the exclusive and narrow views which some take of their character and treatment.

"Of compound fractures I have hitherto said but little in these lectures, nor do I now propose to enlarge, for although in the two cases just mentioned you have witnessed a successful termination under the treatment adopted, yet they are, upon the whole, a class of accidents the results of which have been to me the least satisfactory of all that

"Had these results been the consequence of one uniform mode of treatment, I should naturally have concluded that that treatment was erroneous. But when I look back to the mode of dressing the wounds—sometimes by a piece of lint soaked in blood, and allowed to form an encrustation over them—sometimes by covering them with a paste of gum, or a pledget of simple dressing, and sometimes by bringing their lips into accurate apposition with adhesive straps:—When I look again to the different positions in which the limb has been placed—either closely enveloped in splints—lying less constrained in a fracture box, or simply resting on a pillow—sometimes in the bent—sometimes in the extended position:—And when I look also to the various means taken to subdue the violent inflammation and high symptomatic fever accompanying these injuries; by general, or by local bleeding, according, to circumstances; very frequently by the use of cold evaporating lotions to the seat of the injury, and sometimes by the use of anodyne fomentations or cataplasms; I cannot admit that the unfavourable results which I have so often had occasion to deplore have been attributable to any bigoted prejudices or exclusive partialities in the mode of treatment

"In my remarks upon this subject, I took occasion to observe that we are greatly in want of a work on these accidents, from some surgeon of varied and extensive experience. I say varied experience, because it appears to me that we are often led by the irresistible force of habit to give our attention too exclusively to one mode of treatment. I remember to have heard an hospital surgeon assert that he never expected to lose another case of compound fracture, by following up the practice, which seemed to him to be a new one, of closely enveloping such fractures in splints and bandages, without undoing them for weeks together. But it is not from those who take such a limited or exclusive view of this matter that we are to expect such a work as I could wish to see, but from those who are capable of discriminating between those cases (perhaps numerous ones) in which the above practice is advantageous, and those in which

it is not only injurious, but absolutely insufferable.

"Before quitting this subject I would beg leave to mention that there are two points in the treatment of compound fractures upon which my own observation has led me to form a very decided opinion, and to offer you a remark which may possibly prove useful hereafter. I have, I think, too frequently seen a reluctance to use the saw in removing the protruding extremities of the bone, when these were either difficult to reduce, or of a sharp and spicular form; and I have, I think, sometimes seen the closure of the external wound attempted by means too forcible and too long continued."

We do indeed require a monograph upon the subject of compound fractures, and not the catch-penny production of a puffing adventurer, but one that shall be the result of extensive and varied observation. It is only the surgeon of a great hospital who could give us such a work as is wanted. We must now take our leave of the able lecturer for the present, but much remains behind that is highly deserving of attentive consideration. To this we shall return as opportunities present themselves, and again we beg leave to part from Dr. Ballingall with feelings of sincere respect.

XXXVIII.

ST. GEORGE'S HOSPITAL.

I. OPEN FORAMEN OVALE.

Case 1. A very fine little girl, four or five years old, was run over by the state carriage of the Princess Sophia of Gloucester, on the 30th of April, the day of the Drawing Room at St. James's. Both wheels passed over the body of the child, who it seemed, from the bye-standers' report, was prostrate, with the face to the ground. She was picked up immediately, and brought to the hospital in a state of extreme collapse, with the skin cold, the face pale, and the lips white. A

graze of the integuments was found in the loins, but no fracture could be felt. When put to bed she vomited; stimuli were given but she never rallied; and at the expiration of between two and three hours she expired.

Dissection. On opening the abdomen, about a pint of bloody fluid was found in it, but no rupture of any large vessel could be detected. The principal extravasation appeared to be in the right renal, lumbar, and iliac regions. The synchondrosis pelvis on the right side was separated, and near the acetabulum, but apparently not into it, the os pubis was broken. The latter fracture extended into the foramen ovale. The transverse processes of the 4th and 5th lumbar vertebrae were broken across at their roots.

On opening the heart the foramen ovale at its most inferior part was found to be pervious, and presented a circular aperture, the bore of which was full as large as, if not larger than a goose's quill. The ductus arteriosus was closed at its aortic end, but at its origin from the pulmonary artery, it presented a small blind foramen.

Here we see the foramen ovale pervious, and the opening a large one too, without producing apparently any inconvenience, or indeed any symptom to mark its presence. We think there can be little doubt that in early life at all events, and probably also in mature age, the open foramen ovale is not of that consequence physiologists would lead us to believe. When we say the open foramen ovale, we mean that malformation only, and not combined with other disease or disorder of the heart. When the pervious state of the foramen is accompanied with enlargement and flabbiness of the organ of the circulation it becomes a much more serious matter as the following case will amply prove.

Case 2. A woman beyond the middle age, who had been in the house more than once for obstinate ulcers of the leg, was received again on the 1st of April for a return, or rather the continuance of her old complaint. This person's appearance was rather remarkable. There was a high flush upon the cheeks, and a kind of scurfiness or coarseness of the

skin, giving a disagreeable cast to the countenance. The surface of the body generally was of a very peculiar hue, neither bright red, nor yet purple, but something between them, and nearer a salmon colour than any thing else to which we can compare it. It struck one, on looking at her, as that of a person whose blood, to use a vulgar phrase, is in a very bad state. We thought when we saw her that the foramen ovale might be open, but on questioning her, she stated that the colouration of the skin had only been present for five or six years. We made at this time no further enquiries, nor did we ascertain whether any or what symptoms, existed to indicate disease or malformation of the heart.

On the evening of the first of May, she was seized with what seemed to be erysipelas of the leg, and so violent was the attack, and so rapid its termination, that by midnight of the 2d she was dead. Since her re-admission, we had not seen her, and the following were the appearances presented on dissection, which took place upon the 4th.

The left lower extremity was in a state of gangrene. The whole back and outside of the thigh presented one immense vesication filled with dark, port wine coloured serum. About the leg there were many vesications, and the limb was generally of a dusky mottled appearance. The superficial veins throughout the body were quite as distinct as if they had been injected, the circumference evidently depending on the stasis of dark blood within them. A colour still remained upon the cheeks, a very unusual occurrence indeed. The body externally was not very fat, but on opening the abdomen, the omentum mesocolon, and mesentery presented one sheet of continuous solid adeps, in which nothing like the vessels of the parts could be distinguished. The deposition of fat was equally great in various other parts of the abdominal cavity. The spleen was half fluid—the liver soft and lacerable with the slightest force—the kidneys in a similar condition. The os tinea was plugged up with gelatinous matter; the uterus presented in its substance, immediately beneath its

peritoneal coat, one or more tubercular patches, a little larger than peas.

A good deal of fat was found in the anterior mediastinum and investing the pericardium. On cutting into the latter, the heart was seen to be large in dimensions, but extremely flabby. Much fat was deposited upon it externally, especially in the line of the auriculo-ventricular sulcus. The parietes of the organ were so thin and rotten, that the finger was pushed through them with the greatest ease. The foramen ovale was open, and the aperture was nearly as large as a six-pence. It would have been larger but for a crescentic fold of membrane which bounded it above. The Eustachian valve was very distinct.

Both the lining membrane of the heart and all the large vessels that were opened, were stained of a deep mahogany colour by the blood, which was universally fluid.

The cavity of the chest was small, and the lungs surprisingly so. Instead of presenting the healthy light gray colour, they were of a deep æruginous tint, compact and dense. They crepitated, however, and shewed nothing like a trace of inflammation. We should say that in point of size, the lungs were one third smaller than they should be in proportion to the body.

The breasts were very large, and the glandular part was almost entirely converted into fat.

Several points in the foregoing case would be worth consideration, did our space or inclination permit us to venture on a sea of conjectures. It is remarkable, however, that although the foramen must always have been open, the symptom dependent upon it, we mean the colouration of the skin, should only have existed for five or six years. Are we to suppose that till then the heart itself was sound, and performed its functions tolerably well, despite of the malformation in question; but that then, and not before, the enlargement of the cavities and thinning of the walls of the circulating organ, made a scale in the balance of the circulation kick the beam? Our readers may form what

conjectures they please upon the subject, but for our own parts, we are disposed to favour the supposition. The state of the lungs also merits remark. Was their miniature size a congenital defect, or was it the result of the state of the heart, and the consequent imperfection of their own functions? Muscles waste when little used, and why may not the lungs?

rest, in a manner that we need not stop to explain. It was many days before the nœvus sloughed away, and the ligatures required tightening several times before the separation was effected. We saw the child lately, and no ectropion of the lid had taken place.

II. TREATMENT OF NÆVI.

CASE 1. *Subcutaneous Nævus, of the Lower Eye-lid—Excision performed.*

A child about ten months old, was brought into the operating Theatre on the 23d of March, with a subcutaneous nœvus, the size of a nut, on the lower lid of the right eye, not mounting quite so high as the tarsal cartilage. Mr. Brodie excised it, removing it, together with the skin over it, by two semi-elliptical incisions. One or two vessels bled smartly and required to be tied, when the wound was dressed with lint and sticking plaster, and the child sent home. The wound healed without any thing untoward or unusual, and the cure was effected without ectropion of the lid.

CASE 2. *Subcutaneous Nævus of the Upper Lid—Modification of the Ligature.*

The child was four months old, and the nœvus, about the size of a large Spanish nut, was situate on the upper palpebra of the left eye, and passed down to the margin of the tarsal cartilage, which was overlapped by the little tumour, but did not appear to be implicated with its origin. Mr. Keate introduced a curved needle, armed with a double ligature under the base of the tumour, carefully avoiding the fibrous layer that forms the lid. The needle was passed quite through transversely, from side to side, and then a second was passed with the same precaution from before backwards, exactly at right angles with the former which it crossed. The needles were then cut away and the ligatures remained. These were severally tied at the corners, so that there were four knots, and the last tightened the

CASE 3. *Cutaneous Nævus of the Back—Excision.*

On the 23d of March, immediately after the case first detailed had been disposed of, a child younger still, and healthy in appearance, was operated on by Mr. Keate. The nœvus was irregular in shape, of considerable dimensions, placed over the dorsum of the right scapula, and evidently not seated beneath the skin, but in the substance of the cutis itself. It rose up abruptly at its margin from the surface of the neighbouring skin, and was covered by a thin layer of cuticle. Mr. Keate excised the tumour by including it between two semi-elliptical incisions, and then dissecting it away. An artery of some little size distinctly entered at one corner of the nœvus, and a vein apparently issued from it at the other. The artery was taken up, and the wound dressed with sticking-plaster and compress.

The wound did not heal by the first intention; a smart attack of erysipelas succeeded, spread over a considerable part of the back, the whole of the arm and other parts of the trunk, and, finally, it was two or three weeks before the child and the wound were well. We saw it, however, on the 21st of April, when it looked hearty, and was perfectly recovered.

III. INJURIES OF THE HEAD.

CASE 1. *Scalp Wound. Some Symptoms like Delirium Tremens.*

Thomas Bevan, setatis 27, was admitted in the evening of the 26th of April, under the care of Mr. Keate. This man was a servant at a distiller's and had been so for fourteen months. During that time, having had a *carte blanche* to the spirits, he was tolerably often drunk, and during that time, also, but never before, he had been subject to what seemed to be epileptic fits. On the

evening of the 26th, whilst intoxicated, he fell against the banisters, and cut his forehead. The wound was perpendicular, small, and shallow, and the bone was not exposed. When admitted it was hard to say whether he was suffering from the effects of his potations, or the wound upon the head. The latter was dressed, and the patient put to bed. Next morning he had recovered his senses so far as to tell how the accident happened, and confess to his habits of inebriation. He had early in the morning been seized with some symptoms of extreme nervousness and irritability for which he had been bled with good effect. On the 29th he was free from any urgent symptoms, and the wound was all but healed; but still there was a degree of irritability about him indicative of the life he had led, and the kind of action that a slight cause perhaps might set up. On the 10th of May the wound had been healed for a week or more, and the patient was free from complaint.

CASE II. Scalp Wound denuding the Cranium—Urgent Symptoms—Bleeding—Erysipelas.

George Foley, ætatis 32, admitted April 28th under the care of Mr. Keate.

He had just fallen with a scaffolding in Grosvenor Place, from a height of 40 or 50 feet upon the ground, and received an injury of the head, with a superficial wound and contusion of the knee-joint. On the right side of the head, a little above and anterior to the ear, was a scalp-wound, jagged, and leading down not only to exposed pericranium but bare bone. There was no fracture. He had been stunned by the fall and at the time of his admission was not recovered. The pupils were sluggish; the man restless, fidgety, and unable to answer questions; the pulse was but little affected; he had had no vomiting. The Portio dura on the side of the injury appeared to be partially paralysed, for the mouth was decidedly drawn towards the left.

In the evening the pulse got up and he was bled to ten or twelve ounces. Next day he was greatly recovered, so much so indeed as to be able to give a

very good account of the manner in which the accident occurred. He had had no sickness and passed a good night; the pulse was risen, not very hard nor quick, but still it was risen; the pupils acted, but were somewhat contracted; the paralysis of the right portio dura was lessened; there was no head-ach. The wound had been dressed, the neighbouring part of the head shaved, and cold lotion constantly applied. He had also been purged by the house-medicine, and took salines with the sulphate of magnesia every four hours. In the afternoon of the 29th he was flushed in the face, and the pulse had got up; in the evening he was bled to ten or twelve ounces.

30th. Not so well to-day. The patient is drowsy and heavy—has pain in the site of the wound—pupils more inclined to be contracted—still some distortion of the mouth—skin warm—pulse not very hard nor quick, but full—bowels not opened—no nausea nor shivering. The wound looks foul and is covered with a poultice; the blood abstracted last night is not inflamed.

Rep haust salin. c. Magnes. sulph. addendo vin. ant. tart. m. xxx.

Next day there was little alteration save that the pain in the head was rather less, and the tongue was more moist. He had had no rigor. In the evening he was bled to $\frac{3}{4}$ x. and on the 2d, presented very urgent symptoms. He had passed a bad night—there was much head-ach—extreme drowsiness—face flushed—skin very hot—pulse quick and bounding—scalp tender about the wound and tumid. There had been a kind of chill succeeded by heat, but no distinct rigor. He was bled to $\frac{3}{4}$ viij. and very soon afterwards the blood shewed the buffy coat. In a couple of hours or thereabouts, the vein was re-opened and 33 ounces of blood abstracted. This had a marked effect upon the pulse; the skin grew pale; the heat diminished; and a copious perspiration succeeded. At 5, p. m. re-action had not set in; the pulse was soft, the patient in a tranquil state.

May 3d. An erysipelatous blush has shewn itself upon the forehead, attended with tumefaction of the subcutaneous

parts of the scalp. The tongue and skin are moist—pulse soft—head-ach not severe—restlessness trifling.

Pot. subcarb. ʒj. aq. distill. ʒiss. succ. limon. ʒss. 4tis horis.

On the 4th the erysipelas had extended down the forehead to the bridge of the nose and cheeks. The tint was very pale, owing, no doubt, to the active bleeding practised on the 3d. The symptoms were now as favourable as could be wished; skin moist—pulse soft—no delirium—head-ach slight—tumesfaction of scalp not great. On the 5th he complained of nothing but feeling low, and every thing indicating the exhibition of bark, it was ordered with the liquor ammoniæ acetatis. The scalp-wound looked clean, but the portion of bone was still exposed.

R. Liq. amm. acet. ʒij.—aq. distill. ʒvj.—decocl. cinch. ʒss. 4tis horis.

The bark agreed well, the erysipelas rapidly arrived at its acmé and scaled, the feverish symptoms quickly passed away, and on the 10th the patient complained of nothing except hunger. Stimulating diet, of course, was prohibited, and every thing at the date of this report, 13th of May, would seem to augur rapid convalescence.

This was certainly at one time an urgent case, and the combination of symptoms on the 2d inspired a not ill founded dread of mischief brewing within the skull. It will be seen from the report that, previous to these unfavourable symptoms occurring, the patient had experienced a chill, but no distinct rigor. This we consider an important circumstance, and one that will generally enable us to predict that erysipelas is impending, rather than the formation of matter. In the cases of the formation of puss upon the dura mater the rigor, as far as we have witnessed, is generally very severe, and exceedingly unlike a mere chill. When erysipelas, on the contrary, is making its approach, the shivering is seldom of much severity, and indeed is often entirely overlooked by all parties. This, we should say, is at times an important criterion in these dangerous and frequently obscure cases. It may be asked whether, under these circumstances, a bleeding to 33

ounces was indicated? We believe that it was; for, setting aside the doubt that must necessarily exist as to the positive nature of the case, it seems that the active depletion almost “put out” the erysipelas, and modified it greatly at all events. Stout, healthy men, attacked with erysipelas after a scalp-wound, will bear both bleeding and depletion a thousand times better than any other persons, at least in hospital, labouring under that disease. We remember witnessing the case of a soldier who was treated throughout by very active phlebotomy indeed, and recovered well. If speedy and decided buff upon the blood, with strong pulse, hot skin, and loaded tongue, are to be considered as indications for blood-letting, they were all present in this instance.

The next case to which we shall advert is one of a more melancholy character.

CASE III. *Compound Fracture of the Skull—Abscess in the Brain.*

Henry James, eleven years of age, was cleaning a horse on the 28th of April, when he received a kick on the back of the head, which produced a wound, and instantly stunned him. It was said that in the course of a little while he recovered, but quickly relapsed into his former insensibility. About an hour after the accident he was brought into the hospital, previously to which he was sick and vomited. In half an hour after his admission we saw him.

He lay tolerably quiet, when not disturbed, without any stertor or convulsion. On asking if he had any pain, and rousing him from his lethargic state, he stared, but made no reply; on attempting to look at the wound he grew quite unmanageable, rolling about in the bed and trying to thrust away the hand. The pupils were dilated—the pulse by no means devoid of force—the skin warm. Just above the spine of the occipital bone and a little to the left of it was a transverse wound of the scalp, about an inch in length, jagged, and, leading to the bone, which was broken, depressed to the depth of a line, or rather more, and apparently splintered. The fracture, as far as we could judge,

was just above the left lateral sinus. The nurse informed us that, just before we saw him, he had had convulsions, but they had, by this time, completely passed away. He had not been bled.

The back part of the scalp was shaved, the wound was dressed, and, in the evening, he was bled to $\frac{3}{4}$ iv. and took a powder, consisting of three grains of calomel and three of the pulvis antimonialis.

29th. He vomited again last evening, but has had no return of the convulsions. To-day he is much more sensible, being able to answer questions rationally. The pupils act—the pulse is quick and rather full—tongue moist—skin hot. A poultice has been applied to the wound, around which there is much tumefaction. During the early part of the 30th he made no complaint, but, towards the afternoon, he suffered from pain in the head—the skin was warm—the pulse a little quick and sharp—the tongue whitish, but moist. He had had no rigor nor vomiting. In the evening he was bled to 5 ozs. and soon afterwards the blood was cupped and buffed. On the 1st of May the pulse had some jerk and the skin was warm, but the pain in the head was diminished. The bowels were freely opened, and neither rigor nor vomiting had occurred.

May 2d. Complaints of much head-ach; he is drowsy; the tongue white and moist; pulse pretty quiet; pupils a little dilated; bowels open; no rigor. A poultice is kept to the wound, which looks dirty and sloughy, and has some tumefaction around it. He is taking salines, with $\frac{3}{4}$ j. of the sulphate of magnesia.

Next day he was much the same, drowsy still and heavy, with the pupils apparently little affected, but a good deal of pain complained of in the temples. Eight leeches were applied in the evening, but the pain in the forehead was still severe upon the 4th; the pulse was 80, with some force; the bowels open. He was bled that evening to

three ounces, and, on the 5th, was worse rather than better. He had constant, but not violent pain in the forehead, drowsiness and malaise, with a foul appearance of the wound and surrounding tumefaction. Under these circumstances, Mr. Keate enlarged the wound and examined the state of the fracture. It was about an inch or two in length, with a little fissure extending downwards, but not far. The superior portion of bone appeared to be depressed below the inferior, but the depression, as we stated before, was not above a line or two in depth. We thought, however, that the tables appeared to be separated as far as they could be in so young a subject. Mr. Keate did not trephine, but applied lint between the edges of the wound, and over that a poultice and lotion.

On the 6th, the child was still heavy, and to us appeared rather incoherent. The pulse was 84, full and sharp; the pain was still present in the brow. In the evening he was bled again to 3 ozs. but the next day brought no perceptible amelioration, nor, indeed, any material change in the symptoms. The pain in the forehead continued—the pupils appeared to be a little dilated, and the patient was frequently complaining of weakness and soreness of the right eye—he was drowsy—loth to be disturbed, but yet answering questions when spoken to—and had had in the morning, according to the mother's report, a shivering. Of the latter fact, however, we could by no means obtain a satisfactory account. On the 8th, he was still in much the same condition, but, during the night he was suddenly seized with an epileptic fit, from which he recovered, but died an hour or two after midnight.

Dissection. The scalp was reflected from the calvarium in the usual way, when the whole of the fracture was exposed. Its extent and form were found to correspond with what we have already stated, and the pericranium, for some little distance around, was detached from the surface of the bone. On removing the calvarium, the dura mater, as far as it was seen, was intact, and on cutting round the membrane, and turning it back, the surface of the brain was equally uninjured. The hemispheres were sliced down to the level of the lateral ventricles, when the left was found filled with a mixture

of serum and pus. The posterior horn was discovered, on prosecuting the examination, to open into an abscess, the size of a walnut, in the posterior part of the left hemisphere, exactly opposite the fracture. The right ventricle contained also purulent fluid, but not to so great an extent as the left. The brain was removed, and the state of the fracture internally observed. The inner table had been separated in some degree from the outer, and the depression internal to the skull was greater in consequence, than that which existed without. The sharp edge had pierced the dura mater in one spot, and apparently pierced the brain also, at least it was here that the abscess in the latter had begun. Between the dura mater and the bone was a very slight extravasation of blood, but no pus. The membrane, however, at this spot was inflamed. Some lymph was found at the basis of the brain and about the decussation of the optic nerves.

In consequence of the reluctance expressed by the friends, none of the other cavities were opened.

This case is one of much practical importance, for it serves to illustrate the truth of the opinion advanced by Sir Astley Cooper and maintained by Mr. Brodie, respecting the dangerous nature of compound fractures of the skull. We suppose there can be little doubt that the spicula of bone, piercing through the dura mater and constantly pressing on, if not actually entering the substance of the brain, was a permanent source of irritation to the organ. It was a source of irritation very likely to excite inflammation and suppuration in the substance of the brain, and, *cæteris paribus*, more likely than its removal by the trephine would have been, to lead to those fatal results. The symptoms, during the last five or six days of the boy's existence, were clearly those of inflammation rather than compression. The constant pain in the forehead, the sense of weakness or pain in the eyes, more especially the right, the pulse above par, but yet not much—were symptoms indicative of the insidious mischief going on within. Will

the absence of pus upon the membranes account for the want of any distinct rigor?

XXXIX.

SUNDERLAND DISPENSARY.

I. CASE OF CHOREA, UNDER DR. BROWN.

Jane Wilson, æt. 16, had the ordinary symptoms of chorea in the beginning of January, 1829: she dragged the *left leg* considerably in walking, and had the gesticulations customary in that disease in the arm of the *same side*. The tongue was furred; the bowels were torpid; the complexion was pale and unhealthy; the pulse frequent; there was apparent hebetude of intellect, and she felt giddiness and pain of the head. Several leeches were applied to the temples, and purgatives were prescribed. From circumstances Dr. B. Did not see her again till the 29th of the month, when she was brought to the Sunderland Infirmary, in general and violent convulsions, and placed under his care. She was very largely bled from the arm and from the temporal artery; leeches and cold stupes were applied to the head; calomel and other strong purgatives, and subsequently oil of turpentine, both by mouth and in enemata, were administered: and on the 6th of February, the catamenial discharge having appeared, there was a cessation of the convulsive movements, which, till that time, had been almost incessant, and so violent, that the patient had been kept in bed only by being firmly bound to it. Her intellect, which had been almost entirely obscured even in the short intervals of the convulsions, became so far clear that she answered questions correctly; she complained much of pain in the head; the circulation was quick and rather forcible.

The menstrual discharge ceased on the 8th of February; and, on the following day, there was a renewal of all the violent symptoms. The same remedies were adopted but without avail; the poor girl becoming comatose on the night of the eleventh, and dying early in the morning of the twelfth.

Appearances on dissection. The whole surface of the brain was unusually vascular. Some lymphoid serum was effused between the arachnoid coat and pia mater; the lateral ventricles contained half an ounce of serum; the choroid plexus was unusually vascular; the vena galeni and sinuses of the dura mater were full of blood. But the most remarkable appearance connected with the brain was a calcareous concretion in the medullary substance of the left hemisphere. This body was of an irregular cubic form, and each of its sides measured about half an inch.

The thoracic and abdominal viscera were perfectly healthy: there was a small hydatid formation adhering to the right ovarium.

"I beg to remark (says Dr. B.) that this is the third case of fatal chorea which has fallen under my observation; or at least (that I may obviate a verbal cavil) the third case in which the partial convulsions designated by this term have passed into general convulsions, coma and death; but in the present instance only have I had an opportunity of illustrating the pathology of the disease by examination after death. The result of this examination, the mode in which life is terminated, the symptoms of the disease whilst the convulsions are only partial, and the effects of remedies upon it, lead me to the conclusion, that it arises more frequently from direct irritation of the brain with increased afflux of blood thither, than merely sympathetic excitement of this organ. The bold depletory measures applied by Sydenham to this disease might induce us to believe, that his opinion of its nature was not materially different from that here expressed; and even the indefinite language, in which he endeavours to embody that opinion, reduced into a more precise form conveys very exactly the same idea: "*cum adfectus iste ab humore aliquo in nervos irruente, quorum irritatione istius modi motus præternaturales producantur, pendere mihi videretur, &c.*" Substitute the word "blood" for a certain humor;" and suppose the impulse to be to the *origins* of the nerves, and his opinion is very exactly that which I am es-

pousing. The whole passage whence the extract is made, is an excellent example of the superiority of this distinguished physician's practice to his reasoning, or rather to the language, derived from the Galenical school, in which he has unfortunately clothed that reasoning. My success in treating the disease by purgatives only, has been by no means so great as that of Drs. Parr and Hamilton; that this plan will frequently succeed I grant; but there are few cases in which bleeding, general or local, may not at the same time be advantageously employed, and some in which it is essentially necessary. When mere purgatives remove the disease, I should attribute it in most cases rather to their relieving the organ primarily affected, than to their withdrawing sympathetic irritation from that organ by expelling noxious matters from the bowels. It may appear somewhat difficult to reconcile this opinion respecting chorea with the acknowledged efficacy of arsenic in its cure, an efficacy which I have often experienced; but if we consider the influence of this mineral over some forms of cutaneous inflammation (*lepra vulgaris* for instance) and perhaps over ague and intermittent neuralgiæ, the difficulty will vanish."

N. B.—It will have been observed that the convulsive movements were on the *same side* as the irritating substance in the brain.

II. CASE OF PURPURA HÆMORRHAGICA.

Thomas Dixon, ætat 22, became a patient of the Sunderland Dispensary, on the 10th of March of the present year. He had profuse hæmorrhage from the bowels; his legs and thighs were covered with petechiæ, and there were some on the face; they existed too on the lining of the mouth, and the thin cuticle covering the tongue being ruptured in three points, the blood flowed from his mouth as he lay. His countenance was pale; his pulse 120 small and hard; he had excessive thirst; complained of much pain in the head, and his bowels were rigidly constipated.

He was freely bled from the arm on

the 13th, 14th, and, 16th, his bowels were opened by pills of calomel, extract of colocynt and croton oil: sulphuric acid and acetate of lead with opium were administered; by which means the hæmorrhage was speedily subdued, and on the 25th of March all traces of the petechiæ had disappeared.

The blood drawn was the richest in coagulating and colouring matter Dr. B. ever beheld. Even after standing for twenty-four hours, it threw out only a few globules of serum.

Dr. B. has related this case for the purpose of noticing a coincidence which may *perhaps* (should it fall under the observation of others) throw some light on this obscure disease. The subject of the present case has been for years liable to obstructed bowels, with occasional violent pain there and vomiting, requiring the administration of powerful purgatives; and though now all hæmorrhage has ceased from the bowels, yet there is still disease existing there. The abdomen is tense and very painful on pressure; the pulse is frequent; the tongue white; the thirst great, and there is either constipation or watery diarrhœa. About a year ago, Dr. B. had an opportunity of examining the body of a female of intemperate habits, who fell a victim to purpura hæmorrhagica. The only morbid appearance discovered (besides the incorporation of blood with the cutis in various parts of the body) was extensive ulceration of the cæcum and right extremity of the colon.

XL.

BATH HOSPITAL.

Several instructive cases of injury of the head have been reported from this hospital in the Provincial Medical Gazette; passing over the first, a fatal and not very unusual instance of hernia cerebri, in consequence of wound of the dura mater, we are led to take notice of the following, because it involves a practical question in surgery, or rather illustrates a position on which we have often dwelt.

I. COMPOUND FRACTURE AND DEPRESSION OF THE SKULL—OPERATION—RECOVERY.

William Wilmott, sixty years of age, fell from a height of fourteen feet in a quarry, and struck his head upon the angle of a block of stone. He was admitted into the hospital shortly afterwards perfectly sensible, with his skin cold, and the pulse small and weak. At the upper and posterior part of the parietal bone was a small wound which bled freely and communicated with the bone, which was fractured and depressed. An oval piece, about an inch and a half long and half an inch in breadth, was indented, one side remaining on a level with the rest of the skull, the other being depressed a quarter of an inch. The depressed part was so firmly wedged down, that it could not be raised until the level edge was completely divided by Hey's saw, when the bone was removed, and, as usually happens, the fracture proving much more extensive in the internal table than the external, several other fragments were taken away. The dura mater was unharmed, and no extravasation existed between it and the bone.

The patient passed a restless night, and was purged and bled to eighteen ounces next day. On the 20th of August, (the accident happened on the 18th) there was a copious discharge of watery fluid from the surface of the dura mater, but the wound had in great measure closed by adhesion. There was a good deal of pain in the back of the head, intolerantia lucis, pulse 70, tongue moist. He passed a restless night, and on the 21st, was bled again to sixteen ounces. Want of sleep, and pain in the head, with a pulse rather slow than quick, viz. from 58 to 64 in the minute, continued to be the more prominent symptoms, and on the 25th, he lost six ounces more blood. A thin, clear discharge flowed for some time from the surface of the dura mater, but the wound healed slowly, and the patient was discharged in good general health, on the 9th of October. The pulse at this time was still slow, and he suffered from giddiness in the head and dimness of vision.

This case is really a fine illustration of Sir Astley Cooper's precept of operating in *compound* fracture, with depression of the cranium, whether there be present symptoms or not. Of course we cannot pretend to affirm in a positive manner, that under other treatment than that which was adopted a different result must necessarily have followed, but we do believe that in all probability it would. Cases apparently similar have occurred where the broken bone was not interfered with, and the consequence has been, the supervention of fatal inflammation and suppuration on the surface of the dura mater, or in the brain, as, for instance, in the case reported at page 234.—Cases have also occurred where the operation which was neglected or rejected in the first instance, has perforce been had recourse to at the secondary period when inflammation has come on, sometimes with success, oftener, much oftener without it. On these and on other accounts, we think that Mr. Norman, under whose care the present case was, acted scientifically and judiciously in applying the saw, and raising the depression, even although it produced no symptoms of pressure at the time. With respect to the giddiness in the head and the weakness of vision that remained when the man was apparently recovered, we believe that these dreags, if so we may term them, of affections of the head after injury inflicted, are by no means uncommon. It is not at all unusual to find a patient complaining for months and months of violent pain in the head, "a solitary symptom after all other symptoms have vanished."

II. FRACTURE OF THE CRANIUM WITH SLIGHT DEPRESSION—WOUND OF THE MENINGEA MEDIA—OPERATION—DEATH.

We are tempted to take notice of this case also, because it has a practical bearing, and is one that will every now and then be met with by the surgeon.

A lad of 16, was brought into the hospital under the charge of Mr. W. Brown, on the fifth of November, having fallen on his head from a hay-loft fourteen feet high. Immediately above the ear was a very slight

scalp wound, and although he was stunned, he was far from completely insensible, desiring the attendants not to cut his clothes in removing them. By the end of an hour, a material change had taken place; he had vomited several times—his respiration was stertorous, though not in any great degree—his pulse was weak, and had become more frequent—the pupil of the right eye dilated, that of the left in its natural state, and acting freely on the access of light—he was much less sensible, but still expressed pain, when firm pressure was made in the seat of injury. Mr. Brown, who saw him two hours after the accident, divided the scalp by a T shaped incision immediately above the ear—exposed the bone—found a fissure extending from the vertex through the lateral and posterior parts of the parietal and temporal bones towards the basis, with a trifling depression below—applied the trephine and Hey's saw, and removed the depressed piece.

The finger now passed into an extensive collection of coagulated blood, beneath which the dura mater could be felt deeply depressed and detached from the bone in a circle of two or three inches in diameter.—The coagulum was removed to the amount of four or five ounces, and the dura mater seen to be uninjured. As fast, however, as it was removed it re-accumulated with rapidity. The source of the hæmorrhage was discovered to be a tolerably large branch of the meningeal artery, pouring out blood with a vigorous jet, some way within the anterior margin of the bone. After some time had been allowed to pass in the fruitless expectation that the bleeding would cease, a tenaculum was carefully passed under the bleeding point, so as not to perforate the whole thickness of the dura mater, and the vessel then secured by ligature. The surface of the dura mater which had not at all risen, was next cleared from blood; the integuments closed by a few points of suture, the head turned to the injured side, and covered with cloths kept wet by cold water. He lost much blood during the operation and was rather more sensible after

it, whilst the states of the pupil, respiration, and pulse had also undergone an improvement. In the evening re-action took place, and six ounces of blood were abstracted; at eight p.m. the dura mater had regained its natural elevation, the breathing was easy, the pulse, 96. He was purged, but next morning the pupil was more dilated and immoveable, the pulse 132, the patient restless. Another purgative was given, and after its operation he seemed to be relieved. However, no material amelioration ensued; the insensibility continued, as did the restlessness; the pupils and especially the right, were dilated; the pulse was rapid, always above 130, and early in the morning of the 11th, he died.

Dissection. The fracture extended from the upper and posterior part of the right parietal bone to the basis cranii, passing through the squamous part of the temporal, running round the petrous portion, which was loose, and terminating in the body of the sphenoid bone. The dura mater, where it had been detached from the bone, "was alive," and covered by a thin but very firm layer of pale red coagulum. The ligature, which was loose in the wound, had been applied to one of the principal divisions of the meningea media, and had not been passed through the whole thickness of the dura mater. The principal injury to the brain was on the side opposite to the fracture, consisting of contusion with effusion of blood under the pia mater, and into the superficial parts of the brain at several points.—There were few traces of inflammation, and those almost wholly confined to the upper part of the hemispheres, where the arachnoid was opaque, and the vessels of the pia mater injected in patches of small extent.

Here also we think that Mr. Norman acted very properly in applying the trephine, even though success did not consecrate the operation. A boy receives a fall upon the

head, which produces a scalp wound, and *does not completely* stun him. In the course, however, of an hour, he sinks into a condition of total, or almost total, insensibility, accompanied with stertor and the other symptoms said to indicate pressure on the brain. Now what state of things can such a series of phenomena point out? Concussion? No, for that would not increase, but be greatest at the time of the accident.—Compression from broken and depressed bone? Surely something more, for that too would be an injury acting at once, and not supervening in a gradual manner. The symptoms are those of pressure, and the pressure is evidently produced by extravasation of blood, *because* it increases gradatim and before inflammation could possibly be set up, just as the blood would pour out of a ruptured vessel. Under these circumstances the surgeon finds a scalp-wound, enlarges it and discovers a fissure. Now we do say, that in such a combination of things, not only is the surgeon right in trephining, but, *ceteris paribus*, he is *bound* to do it, for although the extravasation *may* not be there, the probabilities are strong that it will. In this sort of case it seems to us that the surgeon then ought to trephine, and that whether he finds the extravasation, or whether he does not, he has done his duty. The case, however, is materially altered, when the fissure or fracture of the skull is absent, the other symptoms and the order of their occurrence being still the same. We know that there is pressure, that that pressure is probably from extravasation, but we have not the fracture to guide us to the spot, we want the characters graven as it were, on the tablet of the skull, telling us "here ye may search and find." There may be (and generally is) a scalp wound, the bone may even be denuded, and yet the effusion may be quite on the opposite side of the skull, and trephining, if performed, must be worse than useless. In such a case, and unhappily it is not uncommon, a fearful uncertainty prevails, and a trying question there is for the surgeon to determine.

XLI.

CASE OF HYPERTROPHY OF THE LEFT VENTRICLE—DIMINUTION OF CAPACITY IN THE RIGHT VENTRICLE—EXTENSIVE INDURATION OF THE ARTERIAL SYSTEM—SOFTENING OF THE BRAIN—OLD AND EXTENSIVE ULCERS IN THE ILEUM—DEATH FROM EXTREME ATROPHY. BY JAMES JOHNSON, M. D.

The following highly interesting and melancholy case is calculated to teach humility—to inculcate charity—and to moderate pride, as far as the medical art and its professors are concerned.

The subject of the case was a young officer, about 25 years of age. He had been serving with his regiment, in a part of continental Europe by no means unhealthy, in the year 1827, and was then apparently in good health. It is probable, however, that he may have lived rather freely about that period, and for some time previously.

In the Autumn of the above year, and without any apparent cause, or deviation from usual health and habits, he was suddenly affected, after some riding exercise, with paralysis of the right arm and leg, without any loss of consciousness, or any intellectual disturbance. He was lying on a sofa when the surgeon arrived, who asked him what was the matter, as he appeared in good health? The answer was, "don't you see that I am paralytic." The paralysis, however went off in about six hours from the commencement, without bleeding, but only with some aperient medicine. The next day he was bled, in consequence of some threatenings of a return. He had no more paralytic affection during the remainder of his life—upwards of 18 months—and he did military duty on his voyage home, in the year 1828. As far as could be collected from the patient and from the medical attendants, there had been derangement of the digestive organs, both before and ever after the above attack. Be this as it may, grad-

ual and regularly progressive emaciation of the body went on from this time till the day of his death, (24th of May, 1829) with the exception of a few weeks, which will be presently noticed.

After his return to England, he was under the care of a surgeon in London for a local complaint—and afterwards he was attended occasionally in Yorkshire by another medical gentleman. What were the opinions of these practitioners cannot now be exactly ascertained. Some of them at least, viewed the complaint as that of disordered function of the stomach, liver, and bowels. The patient was able to take some considerable degree of exercise, amounting even to hunting and shooting, in the country, during the Autumn and Winter of 1828. According to his own account, the progress of emaciation was, for some time, suspended in the country.

In the month of February, 1829, the gentleman presented himself to me, at my own house, and the degree of emaciation which then obtained instantly raised in my mind the idea of mesenteric disease. After giving a very slight history of his complaint, he observed that the essential and distressing symptoms were, "a constant fermentation in his stomach, with acid eructations, flatulence, sense of distention in his bowels, progressive emaciation, and debility." He was stripped, and examined in my own library. The emaciation was indeed, alarming. On laying him on a sofa, the abdomen was so extenuated, that I could feel the aorta from the coeliac artery to its bifurcation. I thought I felt enlarged mesenteric glands, and my first impression was, that mesenteric disease obtained. The chest sounded well in all parts, and the respiration was loud and distinct throughout the whole thorax. The heart beat strongly, but not over a larger space than usual—the pulse was 80 and weak. There was no disturbance of the intellectual functions, nor of any of the senses—the appetite was rather craving than otherwise—and the bowels were reported to be irregular, sometimes relaxed, sometimes confined. The tongue was moist, and slightly furred at the root. The patient had

been losing weight, at the rate of from three to five pounds weekly, for a considerable time previously, and the cravings of nature were such, that he took more nutriment, in the aggregate, than a man in health.

As I said before, the impression on my mind was, that the patient laboured under mesenteric disease. A mild aperient was prescribed, and again he presented himself. On examination, no mesenteric glands could be felt, and he informed me that he had passed some lumpy stools. I prescribed mild aperients, and a bitter infusion, with a very small proportion of the sulphate of quinine. I advised him to moderate the quantity of his food; but, on this point, he seemed determined to be the guide of his own conduct. During the first week of this plan the progress of emaciation stopped, and he lost but a quarter of a pound. During the preceding two or three weeks he had lost from four to five pounds weekly. In a week or two more, the "fermentation in his stomach," which was the great source of his grievances, almost entirely ceased;—but, upon the whole, the emaciation advanced. As the patient now made known his residence, I had an opportunity of examining the state of the evacuations from the bowels. They were exceedingly variable—sometimes light or clay-coloured—sometimes dark and lumpy—sometimes slimy—sometimes entirely healthy and formed—but, generally speaking, fetid in smell, and deviating from a state of health. The pulse hardly ever varied from 80 in number, being weak, small, but regular. I candidly confess—and I confessed to the relatives of the patient at the time, that I was at a loss to form any accurate knowledge of the nature of the disease. I did the best that my judgement prompted for checking its progress, but I was unsuccessful. My avocations prevented me from keeping notes of the case; but I think it was about the beginning of April that another physician was called into consultation. He was equally at a loss to form any thing like a determined diagnosis of the disease. We both suspected that some mischief had been going on in the brain, from the period of the paralytic seizure in Portugal; but it appeared to us quite evident, that the immediate cause of the progressive emaciation and atrophy was in the digest-

ive apparatus.* Dr. — recommended an increase of the quinine (to the amount of four or five grains in the day) with alterative aperients. On this plan to the surprise of the patient, as well as of ourselves, he gained, in 14 days, 7 1-4 pounds in weight—and began to drive out daily in his cabriolet. In the succeeding week, he lost 5 1/2 pounds!—He thus went on, sometimes stationary, but generally, loosing flesh and strength, his appetite continuing tolerably good, and the evacuations from the bowels frequently healthy, but more frequently otherwise.

One evening in the latter end of April, he sat at the window of a drawing-room while the easterly wind prevailed and got a chill. He next day complained of pain, or at least uneasiness, in the back part of his head, and there was an acceleration of pulse, with some febrile symptoms. The bitter tonics were discontinued, and some saline febrifuges prescribed. As the head symptoms rather increased, we had the patient cupped on the back of the neck and kept in bed.—About this time, my colleague, on examining the abdomen, thought he felt something like a tumour pulsating near the origin of the renal arteries, and mentioned this suspicion to the parent of the patient. A surgeon was added to the consultation; but nothing could be detected in the abdomen. As the pulse was quick and hard, and the patient complained of some uncomfortable sensations about the head, we agreed that 6 ounces of blood should be drawn from the arm. It was much buffed and cupped. In the course of the same night, *the region of the left parotid gland became swelled and inflamed.* Next day he complained of an indescribable sensation of distress whenever he attempted to turn himself from one

* The pulse, when Dr. — was called in, and during the whole of the Doctor's attendance, till the time of the patient's taking cold at a window, and till the commencement of cynanche parotidea, was weak.—The expression which Dr. — used, was—"this is a shabby pulse."

side to another in bed. While the three medical attendants were at the bed-side, and while he attempted to turn himself, he went off into a most tremendous convulsion, in which he nearly expired. During the fit, we drew off about 16 ounces of blood, (which presented scarcely any appearance of inflammation,) the pulse being hard and 150 in the minute. After being, for some time, on the verge of death, he suddenly opened his eyes, and, in a few minutes, was in the same condition as before the fit. The left side of the face now became much swelled, the parotid gland was apparently inflamed, and fears were entertained that this would be a most formidable complaint. Rigid abstinence and the antiphlogistic regimen were enjoined—the inflammation proceeded to suppuration—the part discharged healthy pus—healed—and was found not to involve the parotid gland, but only the neighbouring cellular structure. The pulse, after the suppuration, fell back to nearly its original state, excepting that it was quicker, being from 90 to 100. Mean time, the unfortunate patient emaciated with increased rapidity; and for eight or ten days before his death, stimulants—quinine in larger quantities than he had ever before taken—and every kind of wine and nutriment that he fancied, were allowed. He died, or rather ceased to exist, on the 24th of May, preserving every sense and every intellectual faculty to the last moment. Such a picture of atrophy was perhaps never before witnessed. Yet the cravings of Nature were urgent, and he ardently begged for nutriment during the time he was on the rigid plan of abstinence for (supposed) inflammatory action in the brain. During all this time, there was not a single symptom that could have fairly authorised a suspicion of ulceration of the intestines. Neither was there any unequivocal symptoms of cerebral affection. The history of the case—the primary paralytic seizure—the convulsion fit—and some tingling sensations in the right arm, were the only data on which to ground the supposition of cerebral disease. Till within three days of the patient's death, every nerve of sense was perfect in its function—and till within an hour of his death, the intellectual faculties were in a state of integrity. For the last two days, sight was very imperfect, and the left eye was turned upwards and outwards.

SECTIO CADAVERIS, 25th May, 1839.

The body was examined, 24 hours after death, in the presence of several medical

gentlemen. The body was emaciated to the utmost possible degree.

Cranium. The calvarium was attached pretty firmly to the dura mater.

On removing it the latter membrane presented no marks of inflammation or increased turgescence; on the contrary, it was, if any thing, paler than natural. Between the tunica arachnoides and pia mater some serous fluid was effused, which escaped, in great measure, on wounding those membranes. The tunica arachnoides was not itself opaque, nor were the vessels of the pia mater loaded, but rather the reverse.

The hemispheres were sliced down to the level of the corpus callosum, without our observing any thing unusual. The arteries of the latter part, however, presented a morbid alteration of their coats, opaque patches of gritty feel and hard consistence. No red points were observed on the sections of the brain, which was very pale.

The lateral ventricles contained about an ounce of clear lymph serum. The plexus choroides on each side was blanched and pale; and, entangled, as it were, in the substance of either, was a mass of curdy, atheromatous-looking matter, oblong in shape, and broader than a pea in diameter.

The brain was now gradually sliced down to its basis. It was generally softened, or in the state of "ramollissement." Its arteries were extensively affected with the same morbid condition as those of the corpus callosum, which were first noticed.

The part of the anterior lobe of the left hemisphere, resting on the left orbital fossa, appeared to be softer than the rest. The same thing was thought to be the case with

the pons varolii. The cerebellum was also softened like the cerebrum.

The pulpy part of the olfactory nerves, resting on the cribriform lamella of the æthmoid bone was very soft. The arteries at the basis cranii, viz. the basilar, vertebral, &c. partook of the same state as their ramifications had done in the brain.

Thorax. The pleural cavities and the lungs were perfectly free from disease. The pericardium was unaltered, and no fluid was contained in its cavity.

The heart was not so healthy; its coronary arteries had hard cartilaginous patches in their coats. The heart, on the whole, was a little enlarged in its calibre. The auricles shewed nothing particular, but not so the ventricles. The right was not attenuated in its parietes, but its cavity was surprisingly small. The walls of the left ventricle, on the contrary, were an inch, and in some parts upwards, in thickness, and the cavity was proportionally much greater than that of the right. The mitral valve presented osseo-cartilaginous depositions, near its attached border, and the same existed in the semilunar valves, at their origin from the sides of the aorta.

The arch of the aorta and its thoracic portion appeared to be sound.

Abdomen. The small intestine had externally a curiously black and mottled appearance. There was no extravasation into the cavity of the peritonæum, but about the centre of the intestinum ileum, was noticed externally a kind of circular brown stain, in the centre of which, was a perforation of all the coats, somewhat larger than a pin's head. The gut was laid open, and a circular ulcer of the mucous and muscular tunics was discovered at this spot, as large in circumference as a shilling. The peritoneal coat alone remained, and even this had in one spot given way, forming the circular aperture described.

Ulcerations of this kind, mostly circular, some affecting only the mucous coat, others the mucous and muscular, and denuding the peritoneal, formed a kind of chain, extend-

ing for 12 or 15 inches along the interior of the gut. In other places the mucous membrane presented patches of acute inflammation, unaccompanied by ulceration. As we approached the ileo-cæcal valve, the intestine resumed its natural appearance, and the latter part with the ascending arch of the colon were healthy.

The liver was sound; so was the spleen; and the stomach also. The kidneys were diminutive, and not exactly healthy in their structure. The renal capsules, especially the left, were remarkably large, and their coat, which was of a yellowish buff colour, was full a line in thickness, and corrugated on its surface.

The abdominal aorta disclosed, when cut into, some faint streaks of atheromatous deposition, but the mesenteric vessels and the renal shewed them more distinctly. The iliac vessels were perfectly sound.

The mesenteric glands were slightly enlarged.

The bladder was full of urine.

(Signed) HENRY J. JOHNSON.

On the next day I wrote a note to Dr. Elliotson, (who had witnessed the examination) inclosing the minutes of the dissection, and requesting to be favoured with any remark he had to make on the statement. The following was his reply.

"My dear Sir,

"The account appears very correct. I did not handle the brain; but though I hardly think it was generally soft, it was undoubtedly so at the septum lucidum, for-nix, and over the left orbital plate of the frontal bone. *The softening was clearly not the result of inflammation, (for I never saw so pale a brain and membranes,) but either of deficient distribution of blood, from the diseased state of the arteries, or of the cachectic disposition which gave rise to this diseased state, and to the depositions in the plexus choroides.*"

J. ELLIOTSON.

Grafton Street, Thursday, 28th May, 1828.

I have now to entreat the reader's attention to the highly interesting phenomena presented on dissection. A careful review of the post-mortem appearances lead me to class them in the following order of prece-

dency. I think it will be admitted by those who are conversant with pathological investigations, that the consolidation and thickening of the left ventricular parietes, and the induration of the arterial coats, were first in order of occurrence. That these changes had commenced long before the attack of temporary paralysis, no rational doubt can be entertained. The consolidation of the heart, as compared with its size, was greater than I had ever before seen. It felt like a lump of lead when poised on the hand. Have we any marks of inflammation here? The pericardium was beautifully pellucid—no effusion—no vestige of coagulated lymph. This hypertrophy of the left ventricle, with encroachment on the right—this condensation and increase of structure are produced by causes of which we are ignorant. The same may be said of the atheromatous deposition between the tunics of the arteries. Is this too an inflammation, and to be cured by copious blood-letting?

We next come to the softening of the brain. Without entering into the litigated dispute respecting the causes of "ramollissement," it would be absurd to ascribe it, in this case, to inflammation. *There was not a single trace or evidence of inflammation in the brain.*

"De non apparentibus et non existentibus,
eadem est ratio."

If, indeed, we had found a portion or portions of the brain softened down, with a surrounding injection of vessels and the other well-known products of inflammation, we might fairly perhaps conclude that a process of inflammation had been going on. But in the case before us, there was not one iota indicative of inflammation—but quite the reverse. The brain was in as complete a state of atrophy (in its way) or *inanition*, as the body of the unfortunate deceased. On this point every unbiassed pathologist must coincide with Dr. Elliotson.

At whatever period, then, the softening of the brain commenced, we have no evidence that there ever was inflammation there. The temporary paralysis disappeared without blood-letting—and the emacia-

tion went on from that time. There is not therefore the slightest reason to think that copious depletion, at the time of the first attack, would have had any influence over the progress of the disease. It would not have stopped the hypertrophy of the heart—nor the ossification of the arteries—nor the softening of the brain, had such a process then commenced. The surgeon who attended the patient therefore, in the first instance, is completely absolved from censure.

The state of the heart deserves particular attention. Here we have the parietes of the left ventricle immensely thickened, and prodigiously consolidated, at the expense of the right ventricle, whose capacity was diminished to one half its natural size. I heard it remarked that, in this case, "the ossification of the arteries was the consequence of the hypertrophy of the heart—Nature having taken this method of guarding against the great impulsion from the central organ of the circulation." This I conceive to be most erroneous pathology. Nature could not take a worse mean of strengthening arteries than by depositing calcareous or cartilaginous, or atheromatous matters between their coats. It is just in such places, that the arteries give way. A sounder pathology teaches us to view the induration of arteries as the cause rather than the consequence of hypertrophy of the heart. Indurated arteries lose, with their elasticity, the power of assisting the heart in the circulation of the blood:—the heart is therefore called on for greater exertion. It is probable, however, that these two states of the heart and arteries, have no necessary connexion with, or dependence on each other, since we so often see them separate. But be this as it may, the dependence of arterial ossification on cardiac hypertrophy, is clearly out of the question.

It was said, in this case, that the left ventricle must have possessed great muscular force. I very much doubt this inference. Hypertrophy is itself a disease, and I doubt whether a thickened and diseased ventricle has more power to circulate the blood than a healthy one. True, an enlarged and con-

solidated heart will beat with more force against the ribs ; but we very often find, under these circumstances, that the pulse is feeble. Such was the case during the whole of my attendance and that of the other physician, on the present patient, up to the time when cold was caught at a window, and the local inflammation of cynanche parotidea set up. After the suppuration was over, the pulse fell back to nearly its original state. I would account for this feebleness of pulse with a hypertrophied ventricle in the following manner. In the case just recorded, it was allowed by all present that the right ventricle could not contain more than half the usual quantity of blood, from the great encroachment on it of the left ventricular parietes. Now as the two ventricles act at the same time, and as the blood which feeds the left heart is supplied by the right, through the channel of the pulmonary vessels, so the quantity ejected from each ventricle during a single pulse, or during any given time, must be precisely the same. In other words, the left ventricle can only propel into the aortic system, at each contraction, the same quantity which the right ventricle propels into the pulmonary system. It is physically impossible that it can be otherwise. In the case before us, then, the left ventricle, however thickened in parietes and enlarged in capacity, could only eject, at each contraction, about half the usual quantity of blood—for this plain reason, that there was only that proportion furnished by its diminished coadjutor on the right side. And this view is confirmed by the state of the pulse in the present case. I grant that in hypertrophy of the left ventricle, and diminution of the right, there may be a greater *impulse* given to the aortic jet of blood—but the quantity thrown out, must always be in accordance with the diminution of capacity in the right chambers of the organ. In the present case, the brain, so far from being threatened with an overflow of blood, could only have received about half the usual quantity at each stroke of the heart.

May not this view of the case account for those intermissions of the pulse which we often find in hypertrophy of the left ventricle, and diminution of the right, where there is no valvular disease. The imperfect supply of blood from the right side, may cause imperfect ventricular contractions in

the left. In the case under consideration, have we not some clue to the atrophy both of brain and body, from the diminished quantum of blood propelled from the heart at each ventricular contraction ? The whole mass of blood could not have gone the round of circulation in less than double the usual time, unless the number of pulsations in the minute should be increased in proportion to the diminished quantum moved forward at each impulse. Thus sanguification of the chyle, and arterialisation of the blood, went on at a prodigiously decreased pace in the lungs, in consequence of the diminished capacity of the right ventricle.

But there was certainly in this case another cause of atrophy which, like the former, entirely eluded the scrutiny of all the medical attendants—the ulcerations in the ileum. At what period these ulcerations commenced can only be matter of conjecture. There can be little doubt, however, of their having existed for many months—and consequently long before the patient came under the care of those who attended him to the end. There certainly was much irregularity of the bowels—much variety in the appearance of the motions—a frequent desire in the patient to take opening medicine, from a feeling of great discomfort whenever there was any thing approaching to an accumulation—and lastly, the alvine evacuations had almost always a fetid smell. But these symptoms are often present where there can be no suspicion of intestinal ulceration. The locality of these ulcerations, in the middle of the ileum, the freedom from disease in the colon, or *caput coli*, may have tended much to obscure the malady, and to prevent diarrhoea, the most constant of all symptoms in ulceration of the bowels. The constant discomfort of stomach was clearly referrible to the disease in the ileum.

That the general excitement, after exposure to cold, the strange sensations about

the head at that time, the buff on the first six ounces of blood, were all to be attributed to the rising cynanche parotidea, no unbiassed mind can doubt. That any inflammatory affection of the brain existed at that period, is negatived to a demonstration by the dissection.*

To what are we to attribute the violent attack of convulsion after the first bleeding?—To any thing, I think, but fulness of blood! The old notions of a "rush of blood to the brain," cannot now be listened to. *Irritation* is a more feasible solution of convulsion, than inflammation or congestion—and, in the present case, the latter states are out of the question. Great losses of blood will cause convulsions in strong people—and small losses may do the same, under opposite circumstances. The whole case which I have narrated, is one of extreme interest—and for all failures of diagnosis, I make myself alone responsible, by omitting the names of my colleagues.† One thing is certain, that the primary and secondary diseases were beyond the power of art, and that the ulceration of the intestines, could it have been detected, would,

in all probability have been indomitable, independently of the other lesions. The rally which the constitution made in one fortnight, during which the patient gained seven and a quarter pounds in weight, under the administration of quinine, is not a little remarkable. This rally could only have been through the medium of the digestive apparatus, improved in function by the tonic. Under more auspicious circumstances—with less disease of the vascular system, and a more energetic sensorial influence, the intestinal ulcerations might have healed. Confidence of recovery never forsook the gallant patient, or ceased to inspire hopes among his afflicted relatives, till the last. The day before his death, he was busy in planning a journey to Brighton, and that without the slightest approach to delirium!

O blindness to the future wisely given!

I have laid the facts of this melancholy case before my professional brethren, with scrupulous fidelity—and for the inference I am solely responsible. There are some circumstances connected with it which I may touch upon at a future period.—J. J.

* Whoever has felt the confusion of thought and distressing sensations about the head in a common feverish cold with sore throat, will readily allow that all the symptoms in the present case about the head, were explicable by the cynanche parotidea, and its symptomatic fever. J. J.

† I take shame to myself for not having paid more attention to the heart. I did notice the strong impulsion of this organ, as compared with the feeble pulse; but the rapid emaciation, and the evident disorder of the stomach and digestive apparatus, drew off my attention from the central organ of the circulation. Could the actual condition of this organ have been ascertained, we had no power over the changes that had taken place. This, however, is no excuse for not having made myself acquainted, if possible, with every lesion that was capable of detection.

XLII.

REMARKABLE CASE OF INTERNAL STRANGULATION, WHICH LED TO A SUSPICION OF POISON, AND A LEGAL INVESTIGATION.
By M. ROSTAN, M. D.

The following case is interesting in a pathological as well as in a medico-legal point of view. It created considerable sensation in Paris.

Mademoiselle Hullin, a celebrated opera dancer, aged 28 years, had experienced numerous attacks of abdominal inflammation in the course of her life, and had often undergone rigorous antiphlogistic discipline in consequence. Three years ago her stomach was in such a weak state, that she could not bear the mildest species of food without sickness or pain. In time, however, she recovered from this state, under

M. Dufour, and could use ordinary diet with impunity. In September, 1828, she married the Sieur St. Maurice, and her health continued good till the 17th February, 1829. On that day she was seized with vomiting of glairy matters mixed with her food—extreme restlessness—anxiety—some pain in the abdomen but without heat of skin or acceleration of pulse. In the night these symptoms augmented—a physician was called in, and prescribed leeches to the abdomen. 18th February. Extreme restlessness—faintness—propensity to make water and go to stool, but without effect. A lavement only brought away some glairy mucus. Pulse and skin were still natural—no thirst—little or no pain in the abdomen, according to the report of one physician, but great pain according to another. Only cataplasms and fomentations were used this day. At eleven o'clock at night, there was some remission of the symptoms—there was moisture on the skin, and the physicians augured favourably. 19th. This morning she suddenly complained of violent pain in the right iliac region, which continued till mid-day, when vomiting of yellowish matters came on. The vomiting increased, and the matters thrown up became black in colour, and evidently fecal. It was then considered that ileus existed. She was put into a warm bath for three hours, but without relief. The pulse became small and quick—the abdomen distended—the features shrunk, and the patient sunk at tea o'clock that night.

small band (bride) of condensed cellular membrane. This band was not more than a quarter of a line in breadth—and could it have been suspected before death, an operation would have readily removed the constricting cause. This little band was about an inch in length, adherent by one extremity to one of the surfaces of the mesentery, and by the other to the opposite surface, thus comprehending and strangling the ileum like a ring on a purse. The cause of the dreadful symptoms and the fatal issue was thus explained, and all suspicion of poison removed, especially as the contents of the stomach and bowels were carefully analyzed.

Our readers will remember the case of Mr. Belzoni's servant, which we published a few years ago, and which very closely resembled the above, except that the poor fellow lingered out twelve or fourteen days—and after all there was no sphacelus of the gut. The patient died from the strangulation and the accumulation of matters above the constriction.—*Archives Generales.*

XLIII.

ACUTE IDIOPATHIC CARDITIS.

The sudden and violent death of this lady gave rise to rumours and suspicions of poisoning, and the husband was accused of the act. The Sieur, conscious of his innocence, demanded the exhumation of the body, and a medico-legal investigation of the death. The examination was made by a physician in the presence of a judge of instruction and some others. He reported a phlogosis of the stomach, redness of the duodenum—incipient sphacelus of the ileum—nothing else remarkable in the body. The physician considered that there was nothing in the dissection which could authorise the suspicion of poison. The tribunals, however, were not satisfied with this result, and Messrs. Orfila and Rostan were ordered to reinspect the parts. They very soon detected the cause of death, namely, a portion of intestine (ileum) strangulated by a

The American Journal of the Medical Sciences quotes some passages from Hecker's *Annals of Medicinæ*, for September last, a journal which we have not seen. Among these passages is one containing what is laid down as the true pathognomonic character of idiopathic carditis, by Drs. Krause and Heim of Berlin. These gentlemen consider the disease as extremely rare—and so it may be, if we restrict carditis to inflammation of the heart alone, and without any preceding inflammation in another structure, as acute rheumatism, &c. The form of the disease, too, which is described by these authors, is certainly

not very common. The following is their description.

"The disease begins with shivering and trembling of the whole body, and intermittent chill, which latter, when present, may continue during twenty four hours, but is followed by very little or no heat. There is no acute stitch felt, but pains in the heart precede the distinct attack for twenty-four hours. Sometimes the disease comes on suddenly. The patient has no cough; if in any instance cough occurs it is entirely dry, neither mucus nor blood being expectorated. In the commencement the patient has the greatest anguish and the most agonizing pain, not in the chest generally, but immediately in the heart itself. The patient shrieks out and is not quiet more than a second, repeating with great force the same word three or four times to express his most distressing sensations. He does not lie still an instant, but tosses himself about in bed like one half distracted, while his arms and head are in continued motion.—The patient presses upon the region of the heart, and if pressure be made by a bystander, he impetuously demands that it shall be increased. The countenance is always extremely pale. The chest is elevated, and the head, which is in perpetual motion, is thrown more backwards. The face and hands are quite cold. Before each necessary bleeding, the pulse is throughout not to be felt. The patient feels every movement of the heart, and even complains of its painful throbbing, yet when the physician applies his hand to the chest, he cannot discover the least irregularity. The stronger the pulsation of the heart is, the greater is the pain felt in the organ; it seems to the patient to strike upon a wounded spot. He is nauseated, but does not vomit; the greater his thirst is, so much the more does he refuse to drink, even when a glass of water is held to his mouth. He is very loquacious even when otherwise naturally silent; we might also say physically, what the Scriptures assert morally, that 'out of the fullness of the heart the mouth speaketh.'—Fainting and delirium are not uncommon.

which lasts for several hours, that the patient thinks himself quite cured. But the symptoms suddenly return again after the cessation. The anguish and pain is increased by warm applications to the chest, and the patient throws them off. If the treatment be neglected, or improper, the patient dies either in consequence of polypus formations on the internal or external surface of the heart, as well as on the internal surface of the pericardium, or with adhesions of the heart to this membrane, and effusions of pus or water into the cavity of the pericardium.

"The case related by Dr. Krause, in which also he had the assistance of Dr. Heim, manifested the foregoing symptoms in a striking manner. By free and ample bleeding, and the use of digitalis, &c. the patient was quite restored to his usual health in ten or twelve days."

XLIV.

FALSE ANEURISM OF THE HEART.*

It is now generally agreed on in the profession to term the dilatation of an artery into a pouch, without any rupture of the coats, a true aneurism; and that accompanied with such rupture, a false one. Most false aneurisms begin by dilatation of the parietes of the vessel, and are, therefore, in their origin true aneurisms, according to the present nomenclature. In proportion, as we approach the heart, we find that the latter predominate, or at any rate become more frequent; as we recede from the central organ of the circulation, the contrary takes place. The heart itself, especially the left ventricle, is frequently dilated, but seldom presents an example of the false aneurism arising from its walls. Of late years, however, the re-

* A copious bleeding is followed by so great an alleviation of anguish and pain,

* *Sur une Espèce particulière d'Aneurisme du Cœur*; par M. Reynaud, Journ. Hebdomadaire, No. 22.

searches of Buttner, Baillie, Zannini, Corvisart, the brothers Bérard, Rostan, Cruveilhier, Dance, and Breschet, have put us in possession of many facts of this description. The case of the late General Kyd, published by the editor of this Journal, was a well marked, and almost unique case of false aneurism of the heart, bursting into the cavity of the pericardium.

M. Breschet, in his memoir entitled, "Researches and observations on False Aneurism of the Heart," has arrived at the following conclusions. First, that the heart may be the seat of aneurism, differing from that which it commonly presents. Secondly, that this appears to belong, in an especial manner, to the left ventricle. Thirdly, that the apex of the organ is its ordinary seat. And fourthly, that this aneurism, in the mode of its formation, the state of its walls and its contents, appears to come naturally under the denomination of false aneurisms, in the sense ascribed to the term by Scarpa.

In the year 1826, M. Reynaud, the author of the paper we are now to notice, met with an interesting case of the kind, at the Hospital of La Charité, in which he was "interne" under M. Lerminier. The patient presented no symptoms of the disease during life. He was about 35 years of age, and sank under formidable nervous symptoms supervening on colica pictorum. The heart presented the following particularities.

The left ventricle was slightly hypertrophied, and its cavity dilated. The internal lining membrane of both the left chambers was opaque, thickened, and of a milky whiteness, in almost the whole of its extent. The mitral valve was thickened towards its free border, especially at the points to which it is attached to the cordæ tendinæ, which themselves were thickened in volume, and of opaque white colour. This latter alteration was particularly noticed in the tendinous chords arising from the columna carnea situate at the posterior part of the ventricle. Beneath this, and for the

space of a square inch, the internal membrane was whiter and thicker than at any other part, and separable with ease from a subjacent stratum of thick cellular tissue, which, itself could be divided into several layers. The whole texture resembled a good deal that of an artery. Almost in the centre of this altered membrane, and in a point corresponding to the middle of the posterior border of the ventricle, was a rounded opening, capable of receiving the end of the finger, and leading into a nearly spherical cavity. The cavity was large enough to contain a nut, and extended almost to the layer of pericardium immediately investing the heart, from which it was separated only by a very thin layer of muscular fibres. This little aneurismal pouch contained, at its most depending part, a small quantity of fibrinous coagulum, deposited in the form of a membrane on its surface. The walls of the pouch were formed by a dense fibrous membrane, composed of two laminae, the superficial thin and whitish, the deeper thick, and like the middle coat of an artery, containing in its substance fibro-cartilaginous and osseous points. This membrane was continuous with the lining membrane of the ventricle, of which it possessed all the characters, save that at the neck of the pouch it was particularly thickened. The muscular fibres of the heart, did not actually enter into the formation of the sac, but were separated from it by a layer of cellular tissue, from which it was easy to dissect them, except at that part of the pouch immediately beneath the pericardium verum, where the union was more intimate.

Another, and a smaller pouch, entirely filled with old fibrinous coagulum, existed at the middle of the anterior part of the ventricle, near the inter-ventricular septum. Its entrance was narrower than its interior, and the lining membrane of the ventricle prolonged into its interior, which it also lined, was thickened and tumid. The parietes of the pouch were dense, thick, and seemingly fibrous, as in the larger sac described before; its form was spheroidal. Nothing unusual was found in the openings of the heart; the aorta presented some atheromatous depositions in its coats.

It seems that M. Breschet, whose memoir contained the history of ten cases of this description, has come to two general conclusions, one upon the seat of the disease, and the other on the manner in which it takes place. M. Breschet lays down as a proposition, that the apex of the ventricle is the usual spot in which we find the pouch to exist, and probably it is so. M. Reynaud, however, shews in a very satisfactory manner that such is not its constant situation. In three of the cases out of the ten collected by M. Breschet himself, the tumour was obviously in parts of the ventricle distant from its apex; in a heart preserved in the Museum of the Faculty of Medicine of Paris, the superior, anterior, and left side of the ventricle, was the spot affected; in a case recorded by Zannini in his translation of Baillie's *Morbid Anatomy*, the sac does not appear to have been exactly in the extremity of the ventricle; and, in a specimen at present in the museum of the Chatham Dépôt, of which M. Reynaud was informed by "his friend Doctor Carswell," the aneurismal tumour exists at the base of the chamber. Finally, in the case that forms the subject of the author's memoir, both the pouches were in the body and superior part of the ventricle. To these cases we may add that of General Kyd, recorded by Dr. James Johnson, in the sixth volume of this *Journal*, page 466, in the article on the examination, post mortem, of Talma. In the General's case the aneurism was situated at the base of the ventricle, near the origin of the aorta, and had burst into the pericardium. The absence of any symptoms of disease of the heart in that instance was remarkable. In another case which we shall presently record, the sac was discovered nearly in the same situation. From these observations it is quite clear, that no general rule can be laid down, respecting the exact locality of the sac, and consequently that any theory of the disease founded on such a proposition must necessarily fall to the ground.

So much for the seat of the disease, and now it only remains to consider the mode of its formation. M. Breschet, by the very name he has given the disease, discloses his opinion of its nature. False aneurism implies a sac formed by, or accompanied with, the rupture of the lining membrane, and this, in fact, is the view of M. Breschet. On

this point, however, M. Reynaud joins issue with the above distinguished pathologist for the following reasons.

In pathological investigations it is no uncommon circumstance, says our author, to perceive the internal lining membrane of the heart thickened to a greater or less extent, and of opaque white or yellowish colour. The membrane thus altered is easily detached from the parts which it lines, and, beneath it, instead of the ordinary almost imperceptible cellular tissue, a second thick, whitish, elastic membrane is discovered, capable of being divided into several layers, and resembling, in a great degree, the middle tunic of the arteries. Looking at the results of inflammation in veins, and the mode in which it produces thickening of their coats, M. Reynaud would seem to believe that the same cause, inflammation, operates on the lining membrane of the heart. But this gentleman hunts his analogy a little farther, for he says, that as veins in this thickened state lose their elasticity, and are liable to be dilated by the pressure of the blood, so the lining membrane of the heart being thickened, and likewise deprived of its elasticity, is dilated by the force of its contained blood into an aneurismal pouch.

Such is our author's theory of the disease, and no doubt it is applicable to some cases, though certainly not to all. A ventricle whose lining membrane is thickened, diseased, and inelastic, will probably, nay obviously, be more likely to form these aneurismal sacs than one which is not so affected; still, however, there is no reason why a partial dilatation may not take place in a healthy ventricle from causes of which we are totally ignorant, just as a similar dilatation will occur in a healthy artery. Every one must have witnessed examples of the latter fact, and we shall now put on record what we conceive to be an instance of the former.

On the 5th of last April we witnessed, at St. George's Hospital, the dissection of a

young woman, a patient of Dr. Seymour's. The body was not very much attenuated, and omitting, for the present, all other considerations, we shall pass to describe the condition of the heart.

The pericardium verum and reflexum were universally adherent, and the united membranes with the lymph that joined them, were as thick as milled board. Previously to describing what was found in the heart, it is absolutely necessary to notice briefly some points in the anatomy of the organ, which are not dwelt on in the common demonstrations, but are indispensable for the right understanding of the case.

The muscular substance of the left ventricle takes its rise in an abrupt and somewhat angular manner around the ostium ventriculi, from a circular fibrous ring. The muscle of the *ventricle*, as we mentioned before, arises from the lower border of this ligamentous-like ring; and, the muscle of the *auricle*, thin and weak, and not affecting in the least degree the determinate outline of the former, arises in a similar manner from the upper border of the ring, which thus forms the connecting medium between the muscular substance of the auricle and ventricle. The muscle of the auricle, that of the ventricle, and the intervening ring are coated externally by the pericardium verum, which invests all.

The mitral valve is a prolongation and duplicature of the lining membrane of the left auriculo-ventricular cavities, having intervening fibrous substance to give it strength. Between that portion of the membrane lining the wall of the ventricle, and that which forms the outermost layer of the valve, the reflexion of the membrane from one to the other forms a kind of pouch, having at its apex the ligamentous-like ring; on its outside, the muscle of the ventricle; on its inside, the substance of the valve.

Now, in the pouch above described, an aneurism had commenced, and probably, indeed no doubt, was merely a dilatation of this part in its earliest stage, having, on the

outside, the muscle of the ventricle; above, the ring; and, on the inside, the valve. As it pushed upwards, however, it rose beyond the origin of the muscle of the *ventricle*; probably threw inwards or expanded over its surface in an attenuated layer the ligamentous ring; and then encroached on the cavity of the *auricle*. Throwing the ring towards its inner side, it would necessarily divert, in the same direction, the muscle of auricle, which arises from it, and thus would lie between the muscle of the auricle and the pericardium verum.

And this was the state of things in the present case. The pouch was the size of a walnut, and divided into two compartments—it lay in the situation we have sketched out—it was covered towards its inside, above by the muscle and lining membrane of the auricle; below by the mitral valve; and, between the two, by some remains of the ring, of course, though it could not be demonstrated. To the outside it had below, the rounded summit of the muscle of the ventricle; and above this, the inseparably united and thickened layers of the pericardium. It opened into the cavity of the ventricle behind the mitral valve. Its situation was exactly opposite the septum ventriculorum and origin of the aorta.

The lining membrane of the ventricle which clearly formed the pouch, was apparently ulcerated in two or three places, for coagula were adhering to it, which would probably not have been the case had the membrane remained entire.

Thus, then, supposing, as we must, that some ulceration had occurred, it would obviously constitute false aneurism of the ventricle, although no doubt it was merely a dilatation of the lining membrane in the first instance; in other words, a true aneurism. From the preceding details, (and, however prolix they may appear, they were absolutely necessary to give anything like a scientific or accurate description of the disease,) the following facts are apparent; 1mo. that the lining membrane of the auricle and ventricle was generally sound. 2do. That its

dilatation formed the aneurismal pouch. 3to. That the pouch was neither in the *substance* of the muscle of the ventricle nor that of the auricle, but above the first and to the outside of the second. 4to. That it had no communication with the cavity of the auricle, though it had pushed into, and encroached upon, it; and, 5to. That it was prevented from bursting externally only by the pericardium, which, however, from its thickening, and the intimate union of its two layers, formed a tolerably effectual barrier.

From this, and the other cases upon record, we should be disposed to hazard the following remarks; that the lining membrane of the left ventricle is liable to partial dilatations—that these dilatations may or may not be the result of a diseased condition of the membrane—that they may take place, and most frequently do so, in the muscular substance between the bundles of fibres that compose it; but that they may also occur in another situation, behind the valve, and in the manner we have described—that the pouch may attain some size, without producing any pathognomonic symptoms, unless it should burst, as in the case of General Kyd, and then it is instantly fatal. Thus far we believe that we are borne out by facts, and farther than this it would be madness to venture. Nothing is so dangerous as theorizing;

“—————Incedimus per ignes
Suppositos cineri doloso,

and when facts fail, the writer who has any regard for the *longevity* of his opinions, will do well to stop.

XLV.

ITALIAN METHOD OF EMPLOYING TARTAR-EMETIC IN LARGE DOSES, ANTICIPATED IN THIS COUNTRY BY DR. MARRYAT.

Dr. Loudon, of Leamington Spa, has lately called our attention to the prior claims of Dr. Marryat, of Bristol, to the exhibition of large and repeated doses of tartar-emetic in inflammatory diseases, without ultimately

producing any other effect on the system than that of curing the disease.

Dr. Marryat published the last edition of his *Therapeutics* about 1790, and died in the year 1793. The following are his words in reference to tartarized antimony in fever, which will be found to prove, that the plan adopted by Rasori, was, as nearly as possible, the same as Dr. Marryat had practised full 10 years before the time that it was first tried in Italy.

“Any fever may be soon extinguished by the use of the following powders:—Take of tartarized antimony five grains; white sugar, (or nitre) a drachm: let them be well rubbed in a glass mortar and be divided into six powders; one to be taken every three hours, notwithstanding the nausea the first may possibly occasion. If they bring on a diarrhoea, they should still be continued, and it will soon cease. If these are taken, (which is most commonly the case) without any manifest inconvenience, let there be seven grains in the next six powders; and, in the next, ten. Here I beg leave to retract what I said in some former editions of this work, viz. that till sickness and vomiting were excited, this noble medicine was not to be depended on. For I have since seen many instances wherein a paper has been given every three hours, (of which there have been ten grains in six powders,) without the least sensible operation, either by sickness, stool, sweat, or urine, and though the patients had been unremittedly delirious for more than a week, with subsultus tendinum, and all the appearances of hastening death, they have perfectly recovered without any medical aid, a clyster every other day excepted. I have lately seen a great many cases similar to the above, and the tartarized antimony has invariably produced the same effect.”

From the above passage, it will be evident that Rasori and Thommasini, and the other continental doctors, were anticipated by our countryman in the use, or, as some will say, the abuse of antimony in acute diseases—verifying the asseveration of Solomon, which need not here be repeated.—Ed.

XLVI.

NEW THEORY OF DIGESTION. By Dr. THOMPSON, Professor of Chemistry in the University of Glasgow.

This paper, which is published in our respected Glasgow cotemporary of the present quarter, has afforded us considerable amusement. It is a fine illustration of the bias produced in men's minds by the nature of their studies or their avocations. Thus, the anatomist seeks for the *solution* of a problem (in this instance the *solution* of roast beef or plumb pudding) in animal organization or animal secretion—as, for example, the glands of the stomach and the gastric juice. The experimental physiologist solves the difficulty by means of nervous influence, vital power, the electric fluid, or some other subtle agent:—While the chemical philosopher disengages some acid or alkali that effects the object—say digestion—in the twinkling of an eye.

It is necessary that the constructor of a new theory should, as a matter of course, demolish all those which have preceded him. And this, fortunately, is so easy, that it seldom requires more than a few minutes for the operation. A theory is as readily strangled as a man—and though it cannot be always done without pain to some of the parties concerned, it is unaccompanied by any legal penalty, save that of an occasional literary warfare.

Dr. Thomson is too systematic a philosopher to depart from established custom; and, therefore, he demolishes all that stands in his way before he erects his own edifice—just in the same way as the old houses in the Strand are dilapidated preparatory to the formation of the new line, which seems to spring up, as if by enchantment, in their rear.*

* How often have we lingered to survey the modern Golgotha (or place of skulls) in the Strand, contemplating the geography of our faculties on the intellectual maps in Mr. Deville's window! All at once we missed our favourite lounge, and found

Dr. Thomson treats *fermentation and trituration* with lenient, but sovereign contempt, and only condescends to open his battery for a few minutes on the *gastric juice*, as the “presently received explanation” of digestion. As we are fond of jumping at conclusions, we shall not trouble our readers with the arguments which Dr. T. adduces against the existence of a solvent gastric juice. To us, indeed, these arguments do not appear very strong; but still we are more disposed to give an account of the constructive than the destructive theory.

The experiments of Stevens, Reaumur, and Spalanzani, shewing the solution of substances inclosed in metal tubes, and introduced into the stomach, might appear rather hard of digestion for the new theory, which denies the existence of a *solvent* juice in the stomach; but no:—every thing is “easy to the ethereal mind.”

“Now, as food could not have been dissolved without a solvent, it was concluded that a solvent was secreted by the stomach itself, and this solvent, therefore, was called the *gastric juice*.”

Our author admits that the experiments of the physiologists above-mentioned, furnish irresistible proof of the existence of a gastric juice; but Dr. T. is of opinion “that the *solvent* is not secreted by the stomach, under the form of gastric juice; but that it

nothing but mouldering ruins and carts in its stead. Two or three days afterwards, we were delighted to see a new and splendid Golgotha in the rear, as if erected by Aladdin's lamp—or the lamps of Deville, and where we hope soon to see the head of our worthy friend, Mr. Nash, with the organs of *constructiveness* and *destructiveness* fully developed. By the way, we anticipate some difficulty in the doctrines of phrenology, in consequence of the new improvements. Looking at the Metropolis during the last ten or fifteen years, it would be difficult to determine which organ predominates in the heads of our great architects. For ourselves we have no doubt that “*DESTRUCTIVENESS*” has the priority—*CONSTRUCTIVENESS* the superiority.

exists in the food, and is merely isolated by the stomach, and brought into a state capable of acting as a solvent." The following are the facts upon which this opinion is founded.

"It will probably be admitted that common salt is indispensable as a seasoner of food. It has been employed in all ages, and in every country, for that purpose; or if there be any nation which does not employ it, we shall find that this nation lives at no great distance from the sea, and that the food and water used by them, contain enough of salt to answer all the purposes which nature has in view. For common salt is an almost constant ingredient in spring and river water, and all the animal and vegetable substances used for the food of man contain either common salt, or an alkaline chloride of some kind or other. This universal use of common salt cannot be accounted for, unless we admit it to be essential to the proper digestion of food.

"Vauquelin announced, many years ago, that the stomachs of oxen, sheep, and calves always contain a quantity of uncombined acid, which he considered as the phosphoric. But Dr. Prout has shown, by decisive experiments, that this acid is the *muratic*, and that the human stomach in all cases contains a quantity of uncombined *muratic* acid. He found the same uncombined acid constantly in the stomach of the hare, horse, calf, and dog. These observations have been amply confirmed by Tiedeman and L. Gmelin, who examined the liquid in the stomachs of no fewer than 43 animals, dogs, cats, horses, oxen, calves, and sheep. The liquid in the stomach was acid in every case, and the quantity of acid was always considerable. *Muratic* acid was always present. They found likewise *acetic acid*, and they say also *butyric acid*. These two last probably appear only in cases of imperfect digestion. For Dr. Prout found *acetic acid* as well as *muratic acid*, in the liquid thrown up by dyspeptic patients.

"Tiedeman and Gmelin found, by experiment, that when food is put into the

acid liquid from the stomach, and kept at the temperature of the human body, it is actually dissolved, and converted into chyme, just as it is in the living stomach. They also found that food, when exposed to the action of dilute solutions of *muratic acid*, *acetic acid*, and *acetate of soda*, at the usual temperature of the living stomach, is speedily dissolved, and brought into a state resembling chyme.

"The stomach is supplied with nerves from the *par vagum* and the great sympathetic; and it is well known that the gastric nerves are large and numerous. Many experiments have been made on the effect produced on the stomach by cutting the *par vagum*. The uniform result has been, that the process of digestion was quite destroyed, the food remained in the stomach unaltered, and the animal, though supplied with food *ad libitum*, died from inanition. It may be sufficient to state the result of the trials of Dr. Wilson Philip in the hospital of Worcester. He found that if the *par vagum* be cut, and the cut extremities be allowed to remain *in situ*, the process of digestion is at first impeded; but it is slowly restored again; because in process of time, the cut extremities of the nerves again unite, and the stomach becomes capable of performing its function. But when the *par vagum* is cut, and a portion of it removed, so as to prevent the extremities from again coming in contact and uniting, the process of digestion ceases, and the function of the stomach is destroyed.

"

"Dr. Wilson Philip, after cutting out a part of the *par vagum* of a rabbit, charged a small galvanic battery, and by means of wires from each extremity, taking the stomach of the rabbit in their way, completed the chain of communication. By this contrivance, a current of electricity was passing constantly through the stomach. The result was, that the process of digestion was restored, and went on as well as if the *par vagum* had not been cut and removed. This important experiment was afterwards repeated successfully in London. Thus it has been ascertained, that electricity may be substituted for the nervous energy, in the process of digestion.

"When a current of electricity, produced in a galvanic battery, passes through a liquid having any salt in solution, the salt is decomposed, the acid accumulating round the positive, and the alkaline base round the negative pole. There is reason to believe that it acts in this way in the stomach, when it is made to supply the place of the nervous energy. It would seem from this, that the nerves of the stomach act upon the liquids contained in the stomach precisely as a galvanic current does; and probably by supplying a constant electrical current. By the nerves of the stomach, the common salt held in solution by the liquids in the stomach, is decomposed, and its muriatic acid set at liberty. The acid thus disengaged, acts upon the food and converts it into chyme. How the soda, the other ingredient in common salt, is disposed of, is not so clear. But as the blood, the bile, and indeed almost all the liquid secretions of the body, except the urine, contain free soda, we can have little doubt about the way that it is finally disposed of.

setting muriatic acid free in a dilute state," we conceive that, when the nerves are unable to effect this decomposition, all we have to do is, to introduce into the stomach muriatic acid, in a dilute state—that is to say, in draughts, *tertia quaque hora*, and indigestion will put it to flight! It is with the view of contributing to our stock of knowledge—some people will say, of speculation—and ameliorating some of the greatest evils to which humanity is subject, that we thus endeavour to give the greatest possible extension to the brilliant theory of our Northern confrere.

 XLVII.

 LIGATURE OF THE SPERMATIC ARTERY
FOR VARICOCELE.

"Thus the first step of digestion appears to be the decomposition of common salt by the nerves of the stomach, and the setting muriatic acid free in a dilute state. This dilute acid acts as a solvent to the food, and converts it into chyme. The food, thus converted into chyme, is thrown into the duodenum. It would appear that after the solution of the food is once effected, the presence of muriatic acid is no longer useful for the subsequent steps of the digestive process. For in the duodenum, the acid is neutralized by the agency of the bile, which contains a little uncombined soda, but is chiefly characterized by the *picromel*, which has the property of forming an insoluble compound with the muriatic acid, and of neutralizing it. The great use of the bile seems to be to neutralize the muriatic acid, which is so essential in converting the food into chyme."

Various modes of treating varicocele have at various times been had recourse to, but none of them have acquired or deserved any permanent reputation. Blistering, ligature of the spermatic vein, and so forth, are now but seldom employed, and in general, support of the parts and such palliative measures are all that are adopted in the treatment of this inconvenience rather than disease. M. Amussat, of Paris, has recently practised what, as far as we know, is a novel operation for varicocele, namely, the ligature of the spermatic vessels.

Dr. Thomson thinks it would be easy to point out "the many important practical results which naturally flow from this theory, and the improvements in the mode of treating dyspeptic and bilious diseases." Now, as the digestion is made to depend on "the decomposition of common salt, by the nerves of the stomach, and the

The patient, M. Nicolas. Rigneri, a Greek, ætatis 30, presented himself to M. Amussat in the month of October last, with a varicocele on the left side as large as the head of a child. Its size was productive of much inconvenience, and obliged him to support it in a linen bag when he wished to walk. The disease had begun at the age of fifteen, without any appreciable cause, and had not been relieved by keeping quiet and soothing local applications. M. Amussat, on examining the case conceived that the only way of curing the disease was by tying the spermatic arteries,

and producing the wasting of the testicle. Accordingly, having laid the cord bare for upwards of an inch in length, he dissected for the spermatic arteries, exposed them, although with considerable difficulty, and successively tied both the spermatic trunk, and ten other smaller branches that pass to the testis along the cord. The operation was "extremely delicate and painful," and after its performance the patient had symptoms of reaction which required a copious bleeding, and antiphlogistic measures. On the next day the scrotum was greatly swollen and oedematous, and on the fifth, an abscess, which had formed on the left side of the scrotum, was opened, and a quantity of fetid pus let out. Sloughs of cellular membrane came away, and a large sore occupied the anterior part of the scrotum, which was slow in healing, and remained fistulous for a length of time. The wound made in the operation itself quickly cicatrised. At the time of the report (Feb. 24th) the testicle appeared to be wasted, a large irregular cicatrix, the consequence of the sloughing, occupied the anterior part of the scrotum, and the spermatic veins, so large before, were converted into hard and knotted cords.

The details of this operation will convince any one that it would be quite unjustifiable, unless the varicose condition of the veins was very extensive and severe. But even in such a case, we doubt whether castration at once would not be better. The ligature of the spermatic artery cures by producing wasting of the testicle, then why not remove that at once, and effectually remove the disease along with it? We would not wish to be misunderstood; we believe there are very few cases indeed where either operation is proper, but we also believe that if either is to be done, castration is preferable to tying the spermatic vessels. The latter, according to M. Amussat himself, is an "extremely delicate and painful operation," is attended with quite as much risk as the former, and after all, is not *sure* to affect the cure of the varicose veins. M. Amussat perceiving the risks which he had run, recommends only tying the main spermatic trunk in future. This might certainly render the proceeding more simple, but would it not

render it much less effectual? Surely the anastomoses of the other arteries would still be sufficient to feed the veins.

XLVIII.

EXPERIMENTS ON THE OPERATION OF MORPHINE IN THE HUMAN BODY IN A STATE OF HEALTH. By Dr. BERAUDI, of Turin.

It is now some twenty years since a talented physician, still practising in the modern Athens, was quizzed a little in consequence of entertaining a number of his brethren, once or twice a week,—not with tea and cards,—but with tincture of digitalis! The parties assembled, and commenced the beverage, each keeping a finger on the pulse of his neighbour, in order to determine the physiological operation of foxglove. The result is well known. Digitalis was proved by *direct experiment*, to be a strong stimulant—although since that period the profession has doggedly adhered to the vulgar opinion that the drug is a sedative, and employ it accordingly. A somewhat similar party was lately formed at Turin, consisting of Messrs. Beraudi, Rebrini, Crispo, and Allinio, for the purpose of taking the acetate of morphia, and thus ascertaining its effects on people in health. These four gentlemen met on the 28th of September last, having previously dined, and commenced their experiments. At 3 o'clock M. Allinio, aged 22 years, of bilious temperament, and whose pulse was at 66, swallowed an eighth of a grain of the acetate in some distilled water. He had scarcely taken the medicine when he felt a bitter, and somewhat acrid taste in the back of the throat. In five minutes, there was severe pain in the epigastrium—propensity to sleep, with somewhat laborious breathing. At the end of 25 minutes, the same phenomena continued. At thirty minutes, there was profuse perspiration—with dilated pupils—

and pulse at 94. At 33 minutes, there was heavy drowsiness, with pain about the frontal sinuses. At 60 minutes the lips were livid, the face flushed, the conjunctivæ injected, severe pain in the frontal bone. At 52 minutes, pains in the bladder, physiognomy stupid, eyes sparkling, urgent thirst, sense of extreme lassitude in the inferior extremities. At a quarter past 4 o'clock, there was pruritus of the skin, continual pains in the genito-urinary organs—weight in the forehead. These symptoms continued till nearly seven o'clock, when severe pain in the epigastrium was followed by vomiting. No sleep took place till two o'clock the next morning, when the experimenter fell into profound repose till six, when he awoke with obtuse pain in the head, and soon afterwards had two alvine evacuations.

The other three gentlemen took the acetate, some in larger and some in smaller doses, at the same hour. Two of them were effected in a manner not particularly different from that already described. One of them, however experienced very little else than an acceleration of the pulse to 108 in the minute. In the course of a couple of days the experiments were repeated, but on an empty stomach. The symptoms were not precisely those which followed the medicine taken after food, but yet, they were not materially different and need not be detailed. The experiments were afterwards repeated with still larger doses of the medicine, and a corresponding degree of intensity in the symptoms. We are not aware that much useful information is to be collected from these experiments. The Northern digitalis-sippers came to the conclusion that foxglove was a stimulant—if we may judge by the symptoms above described, the Italian morphia-eaters have a fair right to infer that morphine is an irritant—for certainly its effects were any thing but soothing.

One thing we would hint to our juvenile experimenters, namely, that medicines when taken in *health* produce very different effects from those which result from the same remedies taken in *diseases*.

XLIX.

RAPID DEVELOPEMENT OF AN OVARIAN DISEASE—UNSUCCESSFUL OPERATION.

A lady about 25 years of age, came up from the country, where she had been a short time as a teacher in an academy, in consequence of an interruption of the catamenia, and some enlargement of the lower part of the abdomen. She had been in unusual good health just before the stopping of the menses, though she had been for years habitually constive. On examination, no tumour could be felt, though the abdomen was certainly larger than natural. There was little pain in any part of the abdomen, but a sense of distention that was very uncomfortable. The urine was scanty and lateritious. We need not detail the treatment, which was varied, but never, for an instant checked the progress of the complaint. In a few weeks the abdomen got much larger, and a tumour could be felt in one side. The pains in various parts gradually but progressively increased, and in the course of ten months from the commencement of the disease, the abdomen had got to a very great size, and the tumour was lost in what appeared to be a general effusion into the peritoneal cavity. As the unfortunate lady, who was attended by Dr. Locock, Dr. Johnson and Mr Bagster, could no longer bear the distention and pain, and as there was the greatest difficulty in procuring a passage through the bowels by any means, a trocar was pushed in near the umbilicus, and seven or eight pints of thin gelatinous fluid drawn off. As the abdomen subsided, the attendants were able to detect several tumours in different parts of the belly; but whether the fluid came from a large cyst, or from the general cavity, was doubtful. From the moment of the operation the sufferings of this unfortunate lady were increased tenfold, and during the remainder of her life (seven or eight weeks) exceeded any that were ever witnessed by the medical attendants. The sac, whence the fluid came, now evidently became inflamed and soon filled again with fluid of a different

character. Death put a period to unheard-of sufferings, and released from protracted agonies an interesting and most patient young lady.

On dissection, one immense cyst filled with muco-purulent fluid seemed to occupy the whole abdomen. On removing twelve or fourteen pints, the internal surface of the cyst was found covered, in many places, with false membranes, the product of the inflammation which succeeded the operation. A chain of diseased ovarian cysts, in irregularly-shaped masses of various degrees of density, rose from the right ovary, spread up under the liver, crossed over into the left side, and went down to the hollow of the ilium. They had so compressed the liver and intestines, that the former was reduced to one-fifth of its original size, and the intestines were so squeezed up against the diaphragm that it was difficult to imagine how any fecal matters could possibly pass along them. The chain of ovarian tumours was divided into innumerable cysts containing an infinite variety of more or less fluid matters. Some of them were almost solid. The large cyst which had been tapped formed a part of this chain of cysts—and was, in fact, the master-cyst. The uterus was very small—and the left ovary was bound down by adhesive inflammation to the contiguous parts.

The rapid progress of this dreadful and fatal disease was remarkable. Not quite twelve months before this lady's death, she was in apparent health. This activity of the disease may account for the bad effects which followed the operation; for, in general, there is no active inflammation set up by puncturing a cyst in slowly advancing ovarian dropsy.

L.

CASE OF AMNESIA; OR, LOSS OF LANGUAGE.

By S. JACKSON, M. D. Assistant Professor of the Institutes, &c. of Clinical Medicine in the University of Pennsylvania. With additional Cases and Remarks.

A failure of the memory, general or partial,

is extremely common, though little noticed. Those who may take the trouble to make inquiries, will find that very many patients acknowledge the defect in question, though few of them state it in the catalogue of their ailments, unless catechised on that particular point. Partial losses, such as of proper names, nouns-substantive, or certain languages, arrest the attention in a peculiar manner, and afford data for arguments in favour of and against phrenology. At present we shall not enter on argumentation, but only state facts. The first which we shall put upon record in our pages, on the present occasion, is the following from the American Journal of the Medical Sciences, No. VI. February, 1829.

"The Rev. Mr. R. the subject of this case, is aged forty-eight years; he is of the sanguine temperament, ruddy complexion, light-coloured hair and eyes, and has lately manifested a strong tendency to obesity; his health for many years has been excellent; he is not subject to head-ach, or to any nervous symptoms. His intellectual faculties are of a high order, but have not been as actively employed as formerly, and he has experienced some mental anxiety: his temper is placid, with a disposition bordering on gaiety.

"On the 5th of September last, early in the morning, he awoke with head-ach, after a restless night. He had, the preceding evening, been exposed to the night air, which had lowered in temperature, and perspiration, which was usually copious, received a sudden check. He took some castor oil, which acted freely in a short time, after which he again laid down. About eleven o'clock, the Rev. Mr. H. who resides in the same dwelling, went into his room to inquire respecting his health, and was surprised to find Mr. R. could not answer his questions. Alarmed at this circumstance, he immediately requested me to visit Mr. R.

"I found my patient in bed, evidently in the full possession of his senses, but incapable of uttering a word. I examined the tongue, and ascertained it was not paralysed, but could be moved in every direction. All my questions were perfectly compre-

hended, and answered by signs; and it could be plainly seen, by the smile on the countenance, after many ineffectual attempts to express his ideas, that he was himself surprised and somewhat amused at his peculiar situation.

"The face at this time was flushed, the pulse full and somewhat slow, and to my inquiries if he suffered pain in the head, he pointed to the front of his forehead as its seat.

"I directed hot water to be brought in a bucket, for a pediluvium, and made preparations to draw blood. Mr. R. exhibited at this time a strong desire to speak, and, after a great many ineffectual efforts, endeavoured to make me comprehend his meaning by signs. Finding I could not understand him, he made a sign that he would write. When furnished with pen and paper, he attempted to convey his meaning, but I saw he could not recall words, and that he had written an unintelligible phrase: it was 'Didoes doe the doe.'

"Forty ounces of blood were drawn from the arm, and before the operation was completed, speech was restored, though a difficulty continued as to the names of things, which could not be recalled. The bleeding and pediluvium produced some faintness, and he was placed in bed.

"The loss of speech appearing to recur again, in fifteen minutes, ten ounces more of blood were abstracted, and sinapisms applied to the arms, legs, and thighs, alternately: the skin became moist and the head-ach was relieved.

"Mr. R. now communicated to me, that when he made the attempt to write, he had intended to inform me he had already used a foot bath, and I might see the floor still wet, where the water had been spilt.

"The sleep that night was disturbed by uneasiness and throbbing in the head, which disappeared in the course of the 6th, and no further return of the affection has occurred.

"In an analysis of this case, we are presented with the following facts: 1st. Sudden suppression of the cutaneous transpiration, succeeded by cerebral irritation and de-

termination of blood to the brain; 2d. frontal pain immediately over the eyes; 3d. perfect integrity of the sensations and voluntary movements; 4th. the general operations of the intellect undisturbed; ideas formed, combined and compared; those of things, of events, of time, recalled without difficulty; 5th. loss of language, or of the faculty of conveying ideas by words, though not by signs: this defect was not confined to spoken language, but also extended to written language.

"The inferences to be drawn from these facts, are, 1st, that as the cerebral irritation produced no general affection or disturbance of the functions of the brain, it was local or limited; and 2d, as loss of language was the only functional derangement of the intellectual faculties, that faculty must have been connected with the portion of the brain, the seat of the irritation; and 3d, that an organ of language exists in the brain. This case lends a strong confirmation to the general truth of the doctrines of Phrenology."

In a late number of the *Archives Generales* we observe the case of a gentleman, aged 56, who, while playing at the game called *tric-trac* in a warm room, felt a sudden pain in his left temple, and, at the same moment, lost the power of expressing his thoughts in appropriate language. His memory betrayed him every time he attempted to use a substantive word—all words of that kind being re-placed by *sonnez* and *vicinoque*, terms employed in the game he had been playing. When the physician (Dr. Chailly) saw him, his face was flushed, and he indicated by gestures that he had pain in the left temple. By copious bleeding, general and local, and revulsive applications, the patient was entirely restored.

In Hufeland's Journal for November, 1828, we observe the case of a physician, Dr. Schoerf, author of several estimable works, who became affected with a severe fever, and was in much danger of life. Nevertheless he recovered from the fever; but found himself completely destitute of all knowledge of the Latin Language, in which he had been a proficient. In all other respects his memory was as perfect as ever.

He was quite unable to write his prescriptions in Latin, and was greatly distressed on this account. Gradually, however, the memory of the Latin language returned, and that in proportion as his physical strength was restored.

The editor of a French journal (in which this case is noticed) sarcastically asks—"how will the phrenologists explain this curious fact? Is there an organ for the memory of *Latin*?" Without being deeply versed in phrenology, we believe we may aver that phrenologists have never appropriated any organ for *memory*.—But granting there was an organ of *lan-*

guage—is there any thing very absurd in supposing that the function of this organ may be *partially* disordered? The editor above mentioned would not deny that the brain is the organ of thought—and yet in a case of monomania, (not an extremely rare occurrence,) he would be somewhat puzzled to account for the disorder of intellect, excepting on the supposition that a function may be *partially* deranged. The flippancy of the anti-phrenologists has always appeared to us in exact proportion to their ignorance of the doctrines which they oppugn.

CLINICAL REVIEW.

LI.

HÔTEL DIEU.

TREATMENT OF IMPERFORATE RECTUM.*

Imperforate rectum, or imperforate anus, is not only a dangerous, but unhappily a much too frequent malformation, and one in which surgery alone can be of service. At page 515 of the last number of this Journal, we related the particulars of an interesting case which occurred in Paris to M. Piédagnel, and we shall now advert briefly to one or two others that have since been recorded.

In February of the present year, an infant three days old, was brought to M. Dupuytren at the Hôtel Dieu, with the anus well formed, but opening into a cul-de-sac, which admitted the extremity of the little finger. The cul-de-sac appeared to be in contact at its apex with the rectum dilated by meconium, and pressure on hypogastrium rendered this sensation communicated to the finger, still more distinct. The accoucheur had made some

unsuccessful attempts to open the intestine with a lancet. The belly was tense, tympanitic, and painful—there was frequent vomiting—and, under these alarming circumstances, M. Dupuytren was afraid to adopt the method of Durat, and establish an artificial anus in the left groin. Instead of this procedure M. D. introduced a trocar in the natural direction of the rectum, but only gave issue to a little gas, and the poor infant died in the course of the day.

At the same time that this case occurred another child five days old, was brought for the inspection of the same distinguished surgeon. In this there was no cul-de-sac, and the anus was only slightly marked—there had been some vomiting—belly slightly tense and painful. In this, as in the former instance, a lancet had been introduced without success. M. Dupuytren wished to open into the descending colon in the left groin, but the parents refused their consent. A puncture was made with a trocar in the usual situation of the rectum, but nothing was discharged, and the infant was consigned to those who had the care of it.

The foregoing are melancholy instances of the fatal effects of imperforate rectum, and we turn with pleasure to one of a more pleasing cast, recorded by Mr. Miller in the January number of the *Edinburgh Journal*. We make no apology for noticing it shortly in this place, as it gives an additional interest to the subject.

* Journ. Hebdomadaire, No. 23.

In 1821, Mr. Miller attended Mrs. — in her confinement, and assisted to bring into the world a male infant, who at first was supposed to be perfectly formed, but was soon discovered to want the natural outlet of the intestines. No trace of an anus existed, but the meconium was passed by the urethra, shewing that the rectum opened into the bladder. Mr. Miller made an incision with the scalpel in the situation of the anus, an inch and upwards in length and very deep. He then plunged a trocar in the supposed direction of the gut, and fortunately for the child, and to its great relief, meconium issued through the canula at the second attempt. When the canula was removed, pieces of sponge-tent were introduced, but they could not be borne for any time, and injections of warm gruel were employed. — In spite of every care, however, the aperture narrowed so much during cicatrization, that it was necessary to enlarge it ten times by a bistoury in the course of eight months. The child grew, but with its growth contracted an unfortunate penchant for coal-cinders, which he constantly eat, and which, almost as constantly stuck in the passage, and required frequent operations to remove them. In one of these, the bladder was wounded, and an urinary fistula in the rectum was the consequence. He possessed the power over the sphincter ani, but required the frequent use of laxatives and glysters; in administering which about three years ago the mother perceived that some substance opposed the introduction of the pipe. Little however, was said about it, till at length the obstruction of the bowels was complete, and Mr. Miller on examination found a calculous concretion of very large size, blocking up the passage, and felt with a probe through the orifice of the anus.

“ As the anus would only admit a goose quill, I enlarged it sufficiently to allow of a full examination with my finger, when finding the stone almost to fill the hollow of the sacrum, it was useless to think of extracting it entire, as I felt satisfied that the bones alone would absolutely frustrate every such attempt. Drilling it to pieces by boring in different directions, at once

struck me as the only method of proceeding, and I unwillingly left the little sufferer for another day, that I might provide the appropriate instruments. Having procured, from an ingenious mechanic, a drilling apparatus to be wrought with a bow and string, (resembling a common hand-drill) I had a few drill-bits formed of a conical shape and of various sizes, to make a bore of from 1-4th to 5 8ths of an inch in diameter. The greatest difficulty appeared to be the properly fixing the stone when in the act of drilling. The impossibility of introducing the usual forceps to grasp such a stone, suggested to me the propriety of having a pair constructed on purpose, with separate blades, which might be fixed with a screw when applied; and such a pair being promptly prepared by Mr. Marshall, cutler, and having obtained the valuable assistance of my friend, Mr. James Miller, surgeon at Perth, I enlarged the anus in the direction of the sacrum as far as the coccyx would allow, and in the direction of the pubes, as far as the safety of the urethra would permit. The separate blades of the forceps were now cautiously introduced, and secured by turning the screw. I then applied the drilling apparatus, while my friend, Mr. Miller, held the stone firmly at the orifice betwixt the blades of the forceps, using every precaution to avoid injury. The drills were steadily and perseveringly applied, first of the small and then of the larger size, until considerable openings were made in the stone in various directions. A pair of strong polypus forceps was now thrust into the openings, and the blades being forcibly separated by extending the handles, the calculus gave way, and was separated into three pieces, each of which had in its turn to be drilled and broken in the same manner before it could be extracted. The whole operation occupied not less than two hours and three-quarters; and it was truly surprising to see with how much fortitude the little fellow bore such protracted suffering.”

No bad symptoms of any kind followed. The patient had perfect power over the sphincter ani—and Mr. Miller believes that, under the use of the elastic

gum catheter, the vesico-rectal fistula will heal. The calculus was at least the size of a turkey's egg, but the *practical* portion of the case being what we want, we need not stop to describe its chemical composition. The proceeding adopted does much credit to Mr. Miller's ingenuity, and may serve as a precedent in a similar case. It is obvious that the *lithontripteur* of M. Civiale, or still more the improvement upon it carried into effect by Dr. Pecchioli, of Florence, and described in a recent number of this Journal, would be infinitely preferable to a comparatively clumsy and unhandy complication of instruments.

applying the stethoscope to the tumour, the respiratory murmur was distinctly heard, and no doubt remained, from this and the preceding symptoms, that the enlargement was produced by the summit of the lung protruded from the cavity of the chest; in other words, by a hernia of that organ. The disease was produced by the habit in which the young woman, like most other females of her age, had indulged, of wearing the stays exceedingly tight laced. When she did this she always experienced a difficulty of respiration, and the volume of the tumour increased. M. Breschet directed this patient to leave off her stays, and proposed to apply compression to the surface of the hernia.

II. TREATMENT OF THE RANULA BY SECTION.

It seems that a Dr. Langier has recently *invented* this plan of treatment in Paris, and entered into some learned disquisitions to prove that it may succeed. The Doctor, however, might have saved himself the trouble of discussing the matter at any great length, as the identical proceeding has long been adopted at St. George's Hospital by Mr. Brodie, and we dare to say by others elsewhere. It was but in the 20th number of our Journal, that we gave an account of cases of ranula treated with more or less success in this manner.

III. SUPPOSED HERNIA OF THE LUNG, IN CONSEQUENCE OF TIGHT STAYS.*

A young woman, 18 years of age, of good constitution, and who had menstruated regularly, presented herself to M. Breschet with a tumour in the right side of the neck. It rose from behind the clavicle to as high as the level of the thyroid cartilage; was broader at its base than at its apex; was of variable size, but at its maximum about the dimensions of the fist; on compression, felt elastic and soft; disappeared entirely if the pressure was made from above downwards and inwards, but again returned on withdrawing the pressure, especially if the stays were laced at the time; was perfectly indolent, and presented no pulsation. On

IV. HERNIA, ABSENCE OF THE TESTICLES FROM THE SCROTUM.

On the 3d of February, M. Sanson exhibited to the *élèves* of the Hôtel Dieu, a man 35 years of age, who had entered the hospital for strangulated inguinal hernia. The gut had been returned by the taxis, but the point of curiosity was the absence of both the testicles from the scrotum. The left was felt in the inguinal canal, but the right could not be discovered at all. From what we have seen we should say, that the imperfect descent of the testicle is a much more frequent occurrence than is generally imagined, or, indeed, than we are told in books. If the testicle thus situated in the inguinal passage should chance to inflame, the case not only may be, but has been mistaken for hernia, and treated accordingly. The fasti of surgery have more than one error of this kind on their pages. When a real and *bonâ fide* hernia is combined with the mal-position of the testis, the case is also perplexing, especially if an operation is required to be performed. An interesting case of this description lately occurred to Mr. Hawkins at St. George's Hospital; the operation was performed, and the patient did well.

V. POPLITEAL ANEURISM—OPERATION—GANGRENE.*

Car——— æt. 35, clerk to the barriers,

* Clinique, No. 5, Tome 4.

* Clinique, Tome 3, No. 96.

who had lived hard, and been subject to extreme privations, began, at the age of 32, to be affected with dyspnoea and palpitations of the heart. During a march of more than 500 leagues he was seized with pain in the right ham, and when he had arrived in France, he discovered a violent pulsation in this part, accompanied with lancinating pains, and augmented by walking or exertion. This was in September, and by the 1st of last January he was quite laid up by his complaint, for which he entered the Hôtel Dieu on the 16th of the next month. He was pale, flabby, and emaciated; affected with head-ach and vertigo; the action of the heart was violent; and all the arteries accessible to the touch, presented to the sight the same unnatural pulsation. The tumour itself in the ham had all the usual characters of aneurism; was very painful in the direction of the peroneal division of the sciatic; and the limb below was œdematous. The health was good in all other respects.

After bleeding from the arm and opening the bowels by castor oil, the operation of tying the femoral artery in the upper third of the thigh was performed by M. Dupuytren. On arriving at the sheath it was found to be thickened, indurated, and apparently the seat of chronic inflammation. The artery was secured with a single thread, on tying which the pulsations in the tumour, as well as in the limb, were suspended. Soon after the operation the patient was seized with excruciating pain on the outer side of the leg, stretching towards the foot and ankles; the face became flushed; and the pulse got up to 140. He was bled to three *palettes* and took an anodyne, which procured him some sleep during the night, but on the 21st the pain was still severe, the temperature of the limb was rather low, and some feeble pulsations were felt in the knee, and even on the *dorsum pedis*. Next day there was much depression, pulse 135, countenance pale, bowels not open. In the course of the day he had epistaxis, and in the evening was bled. During the night he had two short fits of syncope. On the 22d, the whole surface of the limb was warm, but on the upper and outer side of the thigh was a patch of erysipelatous redness, with a

doughy state of the subcutaneous cellular membrane. The pulse was 118—urine scanty and high-coloured—irritability excessive—aneurismal tumour diminished in size—the wound looking well. A poultice to the thigh, diluents, and Seltzer water, were the means employed, and on the 24th he was generally better, though the lower and external part of the calf was still much swollen and painful.

On the 25th the premonitory appearances of gangrene disclosed themselves in the alteration of the countenance, diminished sensibility and temperature, and slight œdematous swelling of the foot. The limb was kept warm and raised, and broths, *vin sucré*, and anodynes administered. He passed a bad night, and the next day only shewed the gangrene more developed in the foot and inferior part of the leg. From the 26th to the second of March, the destruction of the parts went slowly on, the foot passed into complete mortification, large phlyctenæ covered the leg, the thigh at its upper and outer part swelled, and furnished, on incision, a great quantity of pus, and the opposite limb became œdematous. In the midst of all this, the system stood its ground in a remarkable degree. On the 9th, the ligature came away from the femoral artery, and was followed by no hæmorrhage; the wound was filled with pus, which burrowed in the thigh; but the intellectual faculties were still entire. From this till the 18th he gradually got lower, and, after sinking into a lethargic calm, expired at 11, p. m. of that day, the 26th after the operation. The mortification had not extended above the parts already mentioned, although no line of separation formed. The foot itself dried, and resembled that of a mummy, in fact, its condition was what has been denominated the "dry gangrene."

Sectio Cadaveris. The small intestines contained some living tape-worms, and the mucous membrane with which they were in contact was not in the least inflamed. The left side of the

heart was hypertrophied to double its ordinary volume, the parietes of the ventricle being upwards of an inch in thickness. Its texture was bright red and firm, its lining membrane and valves unaltered. The aorta was very large, and presented the atheromatous deposits between its coats in abundance; it had no patches of ossification. The same atheromatous depositions were found in the descending trunk, and more or less in the whole arterial system. The carotids which, during life, had appeared to be greatly dilated, were shown on dissection to be very little so. The sheath of the right femoral artery was dense and indurated. The ligature had been placed on the vessel three fingers' breadth below the rise of the profunda. The artery had not ulcerated at the spot where the ligature had been, but was sealed by a clot five lines in length above the ligature, and a little less below it. The aneurism in the ham was mainly formed by dilatation only of the coats; at its lower part, however, the inner had been destroyed, and presented a circular aperture leading to a pouch formed by the outer. In this, but not in the larger sac, were some fibrinous clots. The popliteal vein adhered strongly to the sac, and in this situation its cavity was entirely obliterated. The venous circulation was carried on by one of the veins on the calf of the leg having enlarged, and opened into the saphena minor. There were many collections of pus around the femoral artery and between the muscles on the outside of the thigh. In the leg was also a similar deposition. No inflammation of the veins in any part could be discovered.

The above case is of great practical interest and importance. It teaches the surgeon to beware of the operation for aneurism in that state of excessive excitement of the circulating system which is marked by preternatural pulsation in almost all the tangible arteries, and tumultuous action of the heart. In such a case the operation seldom or never succeeds, for the aneurismal diathesis, if we may use the expression, is so strongly rooted in the system, that secondary hemorrhage, or some other ill consequence generally follows the application of the ligature. Of this we have seen more than one example. The indurated state of the sheath of the femoral artery ob-

served in the present case is a circumstance which occasionally happens, and is to be considered, we suppose, as another unfavourable item in the catalogue of symptoms. In a case of femoral aneurism for which the usual operation was performed, this condition of the sheath, and indeed if our memory serves us, of the artery also, existed to a great degree. The patient sank from suppuration in the sac, and around the vessel.

LII.

HOPITAL DU GROS CAILLON.

NEW MODE OF TREATING PERINEAL FISTULA.

It is well known to surgeons, that in the treatment of fistula in perineo the urine invariably comes away by the side of the catheter in the urethra, however large the instrument may be. Of course it must be an object to obviate, if possible, this inconvenience, and the following was the method adopted by M. Barthélemy, surgeon to the Hospital du Gros Caillon.

M. —, an officer of Gendarmerie had been subject for many years to attacks of retention of urine for which he was in the habit of passing the catheter himself. One day he experienced more difficulty than usual, and produced a false passage into which the urine made its way, and gave rise to an urinary abscess. This broke, and a fistula in perineo was the consequence, which after continuing open two years, closed and cicatrized. A chronic inflammation and purulent discharge from the urethra still remained, the glans penis swelled, and one day the patient discovered, very much to his surprise, that the latter part was encircled by little ulcerated openings each of which gave passage to a stream of urine. In this state he entered the Val de Grace, where injections and antiphlogistics were employ-

ed without the slightest relief. M. Barthélemy now attempted to introduce an instrument into the bladder, but it always stopped at the seat of the former fistula in perinæo. M. B. conceiving that if an instrument were passed as far as the obstruction, and retained in the urethra, the urine would flow through it, and not make its way by the ulcers at the glans, constructed a catheter, and made the experiment. The water, however, escaped by its side, and the plan not succeeding was abandoned. The idea next occurred to the surgeon of compressing the urethra around the instrument, and thus preventing the possibility of the urine insinuating itself between them. A catheter cut short, with the perforation exactly at its extremity, and not at the sides, was introduced as far as the stricture, and retained in the penis by proper tapes. The urethra was then compressed around it by a circular bandage, and the patient desired to make water. Success at length crowned the surgeon's hopes, and the joy of the comrades of Xenophon could scarcely have been greater when they burst into the tumultuous cry of " *Η θάλασση θάλασση*," at the right hand of the Euxine, than was that of M. Barthélemy, when he found, on the patient making water, that none came away by the side of the catheter! M. ———, was directed, whenever he voided his urine to apply the circular compression round the instrument, and after a month had elapsed he left the hospital perfectly cured of the fistulous ulcers of the glans.

The worst of this method is, that unless the fistula is anterior to the root of the penis, it can do no good, because, behind that point, compression on the instrument is obviously impracticable.—*Journ. Univer. Jans.* 1829.

LIII.

WINCHESTER COUNTY HOSPITAL.

I. DISSECTION OF A CASE OF ASCITES.*

We resume with much pleasure the review

of the report from the above hospital, in our esteemed Provincial contemporary. We have now so often expressed our sentiments on the value of *authenticated* hospital reports, that anything further on the subject would be a matter of supererogation. If, however, authentic reports are of use, what can we say of those which are *not* authentic, but that they are fraught with mischief and delusion. Medical and surgical science after all are only a superstructure bottomed upon *cases*, and if they are false, if the groundwork be rotten, then wo to the edifice reared above. It is indeed a house built upon the sand. It was with this impression and an honest regard for the welfare of medicine, that we struggled so long and so successfully against the system of reporting in a journal that is now sinking fast into oblivion. To assert that we discountenanced accurate reports, was mendacity of as deep and as dark a dye as ever polluted the pages of even that most iniquitous publication; but that we did discountenance those in the *Lancet* is as true as they were false. We are proud for the honour of the profession to say now, that this wholesale manufacturing of lies is looked on with no feelings but those of disgust, and that no one who sets a value on his own character would at present dream of quoting, either for his opinions or against them, the pages of the *Lancet*. *Magna est veritas et prevalebit*.

The following dissection will shew the description of appearances not unfrequently presented in the bodies of patients dying of ascites. It is no great wonder with such diseases that medicine and surgery should both be foiled. The patient, a female, had been successfully treated two years previously for dropsy, which, however, at the end of that time returned, and occasioned her re-admission into the hospital. She was getting much better when diarrhoea and hæmatemesis supervened, and carried her off in a few days.

" *Sectio Cadaveris*. On laying open the abdomen three quarts of a yellowish, turbid, and very offensive fluid escaped, in which large portions of coagulable lymph and

* Provin. Med. Gaz. No. 1.

pus were floating and intermixed. So extensively diseased was the peritoneal covering of the intestines, that at first view it was almost impossible to recognize the intestines themselves. The omentum and the intestines were almost inseparably united, as well as the surface of the several convolutions of the intestines with each other. The viscera and peritoneum lining the abdominal muscles were studded with tubercles and ulcerations, each covered with a black slimy pigment. On tearing through the adhesions by which the viscera were agglutinated together, large ulcerated openings were detected, communicating with the cavity of the intestines, and through which portions of fecal matter had escaped. Mesentery healthy. Liver enlarged, and of a peculiar pallid hue; a section of this viscus exposed the ducts loaded with yellow bile. The gall bladder distended with green bile. Pancreas somewhat enlarged and indurated. Spleen natural. The peritoneum covering the stomach healthy; its pyloric extremity somewhat contracted and indurated, and its internal surface marked by red patches, apparently the abraded termination of vessels, and from which the blood which had been rejected from the stomach was effused. The pericardium contained twelve ozs. of a perfectly clear fluid. The substance of the lungs healthy, but adherent to the pleura costalis. This case in its commencement seems to have originated in a chronic inflammation of the peritoneum, which, from its having been allowed to continue, had produced that disorganization and effusion which were detected on laying open the abdomen. It is more than probable, that at the period when she first left the hospital entirely relieved from her hydropic symptoms, a slow but destructive inflammation of the peritoneum still continued its ravages, and produced both the second effusion with that extensive mischief which was the immediate cause of the patient's dissolution."

We not unfrequently, or at any rate we sometimes find aneurismal sacs proceeding from the thoracic or abdominal aorta, very nearly filled with lamellated coagulum, and therefore it would seem in progress to a natural cure. In a patient, aged 44, who died at the Winchester Hospital,

an aneurismal sac was found to proceed from the arch of the aorta, and pass into the right auricle so as nearly to obliterate that cavity. The aorta itself was much dilated, and the sac was nearly filled with layers of the fibrinous part of the blood. The patient had entered the hospital merely for dyspnoea unaccompanied by pain, but suddenly typhoid symptoms came on, and in this state he died. Besides, the aneurism mentioned above, the roots of the lungs were found to be "in a diseased state." The mischief of it is that in these cases when the cure would appear to be accomplishing, the patient commonly dies from the mere irritation produced by the pressure of the solid tumour on important organs. It is not the aneurism itself which kills at least in the thoracic portion of the aorta, so much as the inflammation and irritation induced in the bronchi and lungs. In the present case one would really be tempted to imagine that the great diminution of the calibre of the right auricle, must have had some share in producing the patient's death, and perhaps the disease in the root of the lungs.

II. EXTENSIVE DISEASE OF THE KIDNEYS AND BLADDER.

A stout, short man, aged 52, suspected of and sounded for stone, was admitted under Mr. H. Lyford, with the following symptoms. Frequent desire to make water, with dull aching sensation at the extremity of the penis after it—urine stopping suddenly when passing in a full stream attended with the most excruciating pain and tenesmus—slight mucous discharge from the urethra—sense of weight and uneasiness in the lumbar region, evident tension in the hypogastric—bowels constipated—pulse 96—appetite good. A pint and a half of dark coloured urine was drawn off by the catheter, but the man complained that his bladder was not yet completely empty, and on passing the finger up the rectum the prostate was found twice its natural size. *Six leeches*

to the perineum—tepid hip bath—occasional doses of castor oil. *Infus. folior Buchu*, 3x. *Tinct. Hyosciam.* 3ss. *Sod. Carb.* ʒj. ʒij ter die. Complete retention of urine with occasional stilticidium came on and required the catheter twice a day. About two quarts of urine were drawn off each time, and deposited on cooling three or four ounces of pus. After the urine had been abstracted, the bladder was now injected with three grains of extract of poppies in twenty of water, which afforded a great deal of relief. On the morning of the 15th, he was seized with violent sickness and retching, which in great measure subsided under the use of an opium pill, and purging by solution of salts. On the 16th, the pulse was 100, and small; tongue dry and brown; skin hot; some nausea. An effervescing saline was administered, the bladder injected as before, and the tepid hip-bath had recourse to; but on the 18th, the countenance was quite hippocratic, a violent rigor succeeded on the 20th, with distressing sickness and great exhaustion, and he rapidly sank and died.

"Post Mortem Examination.—The abdomen opened in the usual way. The right kidney not enlarged, but embedded in an extraordinary quantity of adipose substance, preternaturally vascular; and its substance studded throughout with extensive purulent patches. The pelvis and ureter likewise much enlarged. The left kidney contained a large abscess filled with grumous blood and pus, and its whole structure more or less disorganised. The infundibulum and ureter both inflamed and ulcerated. The bladder was found to contain about a pint of urine, mixed with large purulent flakes and coagulated blood, much thickened; muscular fibres particularly coarse and strong; the internal coat in entire state of ulceration. It was formed into numerous sacculi, one of which, in particular, at the posterior and mesial part of the viscus, was as capacious as the bladder of a child; the opening into it circular, and about one inch and a half in circumference. It was full of the most offensive and dark coloured urine. The prostate gland enlarged, as ascertained by examination before death, twice its natural size; and evidently containing a fluid. A section of it exposed its interior converted into a semifluid pulp. Its ducts were enormously distended, and rendered completely

impervious by small calculi, the size of a pea. Thoracic viscera healthy. Liver smaller than natural. Gall bladder filled with greenish bile. The duodenum appeared to have been recently inflamed. Stomach healthy."

III. SUDDEN PROTRUSION OF THE INTESTINES INTO THE SCROTUM.

John Marsh, æt. 50, a labourer, was brought into the hospital, having just been run over by a cart laden with bricks.

"His scrotum, on inspection, was found to be of most enormous size, extending two-thirds downwards between the thighs, and measuring in circumference 17 inches. Its colour of a jet black; and its texture, from over distention, so exquisitely thin, as to threaten immediate rupture from the slightest manipulation. The abdomen perfectly flaccid and nearly empty. Immediately over the umbilicus existed a large transverse ecchymosis, indicating the exact course of the wheel over the belly. The patient was incessantly vomiting, accompanied by the most urgent retching, extremities cold, the body bedewed with profuse clammy perspirations, attended with syncope. On being placed in bed the viscera were returned to their natural situation without much difficulty, merely by elevating the hips, depressing the shoulders, and applying moderate and careful pressure with flannels moistened in hot poppy fomentation; the facility of reduction depending on the large opening through which the viscera had passed, together with favourable and relaxed state of the patient. One grain of opium was now exhibited, with a view of allaying the irritability of the stomach, and the abdomen fomented, as well as the scrotum, with poppy fomentation; bottles of hot water applied to the feet."

At 4, P. M., the sickness continued unabated, the abdomen was extremely tender, the extremities were warm, but the pulse was feeble. The opium pill was repeat-

ed; a tepid bath used for ten minutes and followed in an hour by a glyster; and the scrotum constantly supported. He passed an easy night, and next day the sickness had subsided and the tenderness was less. The glyster had operated twice; pulse 90, and feeble; skin cool; countenance not so anxious. Castor oil and the warm bath were the means employed, but he passed a bad night, and next day had intense pain in the belly upon pressure; some tension; nausea; pulse 100, and wiry; skin dry; tongue white. The scrotum was reduced in size, but completely black. Thirty leeches were immediately applied, together with the tepid bath, a blister at bed-time, and a mixture of sulphate of magnesia. Stools were obtained by the employment of these remedies, and all the foregoing formidable symptoms, quickly passed away. On the 12th day from the occurrence of the injury the patient was reported as quite convalescent, and able to sit up for some hours in bed, the precaution of applying a double truss having previously been taken. At the end of the third week he was discharged cured.

"Since this patient has left the hospital, I am informed he is subject to occasional diarrhœa, which is extremely violent, and reduces him very considerably before it can be checked. He is compelled to wear his double truss both night and day, otherwise the viscera descend immediately into the scrotum in very large quantities. He was never afflicted with hernia prior to this unfortunate occurrence."

Here we see a patient whose viscera are forced with immense violence into the scrotum although no hernia had existed before, recover under no more active treatment than thirty leeches and a blister. Another man will be destroyed by peritoneal inflammation merely in consequence of two or three inches of intestine having lain in a hernial sac in the scrotum for a few hours, and that though the stricture has never been severe, and the gut has been returned with tolerable ease. This is no imaginary case, for we lately witnessed it at St. George's Hospital. The patient was admitted in the

morning with symptoms of strangulated scrotal hernia, which had descended in the night. Under the use of the warm bath and bleeding the intestine was easily returned by the house-surgeon, but the man was dead before nine at night. On dissection no stricture was found at the neck of the sac, nor at the ring, no rupture of gut, and no very violent peritoneal inflammation. In the present case it is impossible to conceive that the immense mass of intestine protruded into the scrotum could have received a covering or sac from the peritoneum. The latter must have been ruptured on either side, and probably the muscles gave way also, forming the *direct* hernia. The circumstance of the peritoneum being broken, whilst it increased perhaps the danger of inflammation, lessened or entirely did away with that of stricture on the viscera descending through it. The laceration on either side must have been so extensive as to make it a difficult matter to retain the intestines in the belly by such a contrivance as a double truss. We should conceive that some sort of elastic belt, which should brace up the whole hypogastrium, and still make especial pressure at the openings above or about the rings, would be much more likely to answer the end, than the instrument employed.

This closes the report from the Winchester Hospital, but we trust we shall frequently meet again in print with the able and industrious reporter.

LIV.

GLASGOW ROYAL INFIRMARY.*

I. NEVUS MATERNUS CURED BY VACCINATION.

We have no great faith in the powers of vaccination over *nevus maternus*; in fact its occasional success is one of those pretty little facts which are rather a matter of curiosity than of practical importance;

* Glasgow Journal, No. VI.

although it is well to be aware that in some few cases, one perhaps in fifty, it will save the employment of severer measures. A child for instance, eight months old, was brought to Dr. Auchincloss, at the Glasgow Infirmary, last September, with a *nævus* on the forehead, as large as a hazel nut, and of dark red colour. It was present at birth, but attained no elevation from the surface until after a month. The child not having been vaccinated, fresh lymph was inserted by minute punctures, both around the circumference and over the whole extent of the tumour. On the 8th day, many small pustules were visible; on the 12th, they had coalesced and become incrustated; on the 21st, the scab separated; a second crust succeeded, then a third, and a fourth; and in six weeks a perfect cure was obtained.

II. LUMBAR ABSCESS POINTING BEHIND THE TROCHANTER.

The situations in which lumbar abscess points we have reason to believe are much more numerous than is commonly imagined. In one or two instances we have seen it present above the trochanter major and below the anterior portion of the crest of the ileum. In the case we are now to relate, it took another, and yet not very dissimilar direction. The patient, a delicate lad of 14, had laboured under constant pain in the back for eleven months, to which had been added, "diarrhoea and gripes," (not a very elegant mode of expressing it) for the last six weeks when he was received in the infirmary. At this time there was a painful fluctuating swelling over the right hip from the trochanter backwards, which had not been present above three weeks. Under the employment of opiates with chalk mixture, and a succession of blisters to the back and hip, the diarrhoea passed away, and the pain and swelling also subsided. The bowel complaint, however, returned, with tenesmus and tormina; the swelling behind the trochanter suddenly disappeared; hectic was established, and the patient sank.

On dissection it was found that a large thickened cyst, half filled with pus, extended from the lower part of the sacrum to

the upper edge of the last lumbar vertebra. From its middle part a sinus issued, left the pelvis through the ischiatic notch, and led to a large empty sac behind the trochanter. The "cyst" on the sacrum also communicated anteriorly with the rectum by a fistulous opening the size of a crow-quill. "The mucous coat of the rectum and lower part of the ilium" was of a deep red colour and covered with numerous minute ulcers. The inferior lumbar vertebra and upper portion of the sacrum were carious, and their intervertebral cartilage destroyed.

This dissection is of value, as all such dissections undoubtedly are, by assisting diagnosis in a similar case. By the bye, we suspect that an error has crept into Dr. Auchincloss's notes of the case, for it seems somewhat odd that the *rectum* and lower extremity of the *ileum*, parts so remote from each other, should present precisely the same morbid changes. Was it the *cæcum* and lower portion of the ileum that were thus affected?

III. SLOUGHING OF THE SCROTUM—CURIOUS SWELLING IN THE PERINEUM.

Case 1. A man, 37 years of age, had been under treatment in the medical wards for a bowel-complaint, when, at the end of three months he was dismissed cured. A week after his dismissal he presented himself again and was re-admitted for a hydrocele of the right side larger than the fist. The integuments over its middle and fore part, to the extent of half a crown-piece, were of pale red colour, cedematous, and painful. A bag-truss, spirit lotion, opiate enemata, and generous diet, were the means prescribed, but the swelling and redness gradually extended, and, on the 2d of September, four days after his admission, the whole scrotum was affected, and presented a swelling much larger than a child's head. During the preceding night a distinct tumour the size of a hen's egg, had formed in the perineum, occasioning retention of urine, and necessitating the introduction of the catheter,

which was effected without the least difficulty. The gum catheter being in, an incision was made on the perineal tumour, "down on the urethra," in the direction of the raphe, but only a trifling quantity of serum escaped. Several punctures were also made over the scrotum; a poultice was applied; and wine with opium and opiate enemata exhibited. Though the punctures and incision procured relief, the tumour in perinæ growing flaccid, and that in the scrotum being less, yet sloughing of the latter took place, typhoid symptoms ensued, and the patient expired on the 5th.

Dissection. The whole of the scrotum was in a state of sloughing. The cellular tissue of the perineum, as far back as the tuberosities of the ischium, was sloughy and infiltrated with pus—the urethra was pervious throughout, and admitted a full-sized sound—the inner coat of the rectum and lower part of the colon, was much thickened and studded with numerous ulcers.

"The preceding case excited considerable interest. On the occurrence of the perineal tumour, on the 4th day, it bore a striking resemblance, in every particular, both constitutional and local, to a case of urinary abscess. The gentleman, to whom allusion has been made, did not see the patient till the above advanced period, when judging principally from the appearance which the swelling presented, without adverting to the previous history, they were more readily misled in their opinion concerning it. Having witnessed the progress of the case from the commencement, I felt confident that it was in no way connected with ulceration of the urethra or bladder, for the following reasons: 1st, As no previous retention, or difficulty in voiding urine, had been experienced: 2dly, As a full-sized catheter could be easily introduced: and 3dly, The oedematous inflamed patch having first appeared on the middle and anterior part of the scrotum, midway between the septum and angle of the thigh. On the other hand, had it been the consequence of urinary infiltration, I should imagine the redness and swelling would have first shown themselves either contiguously to the septum, at the root of the penis, or in the lower part of the groin. Besides, tension of the

perinæum, in all probability, would have preceded these appearances.

"It is merely an instance of sloughing of the cellular substance supervening on erysipelas, in an unhealthy constitution, in connexion, I should suppose, with the diseased condition of the rectum and colon. Erysipelas, and other cutaneous affections, are frequently met with as symptomatic of visceral disease.

"Respecting the propriety of the practice by incision, there can be little doubt. It was had recourse to on somewhat the same principles as in cases of urinary abscess, namely, the relief of tension, evacuation of sloughy matter, and prevention of the gangrenous action."

Case 2. W. Lavery, a sickly-looking child, 18 months old, was admitted at noon of the 25th September, having voided no urine, since 6 p. m. of the preceding day. The penis and scrotum were swollen, the latter larger than a man's fist, hot, tense, shining, and translucent. There was no tension or fulness in the perineum, and but little in the hypogastrium; the child was feverish, and had suffered from bowel-complaint for the last three months. Twelve ounces of urine were readily drawn off by the gum elastic catheter which was left in the bladder; punctures were made in the swollen parts; and fomentations ordered. The little patient was relieved—in the evening the parts were much less swollen—and on the following day the swelling had almost disappeared. The urine now issuing freely by the side of the catheter, it was withdrawn, but next day the tumefaction had returned to nearly its former extent, accompanied with hardness and a dark red colour of the scrotum. The child was now taken home by its mother, sloughing took place on the lower part of the scrotum and root of the penis, the urethra was exposed; then opened by ulceration, and on the 9th of October the patient sank.

Dissection. "The kidneys were twice their natural size, and lobulated. The

right was the larger, and the more diseased of the two. On section, several small encysted abscesses appeared in their substance, which was unusually soft, and of a pale gray colour. The ureters were dilated to three times the diameter of a common crow quill. The bladder was thickened, and very much contracted, and its inner surface of a dark red colour, and studded over with fungous tumours. These varied in size, from that of a pea to that of a marble; and appeared to be seated under the mucous coat. The larger ones were distinctly fibrous, while the smaller consisted chiefly of black substance, resembling small clots of blood, seated immediately below the inner coat. The prostate gland was much larger than natural, but its structure was free from disease. There was extensive ulceration of the inner surface of the ileum and colon."

As Dr. Auchincloss observes, it is certainly rare to meet with so much organic disease in a child not two years old. Dr. Auchincloss attributes the sloughing of the penis and scrotum to the child's having frequently pulled at the prepuce, in consequence, no doubt, of irritation referred to the extremity of the penis, though depending on the disease of the bladder within. The prepuce, it seems, was the first part to swell, but still the idea that the destructive sloughing of the penis and scrotum resulted from the little mechanical cause in question, looks rather far-fetched, to say the least of it. The lengthened prepuce is almost a constant concomitant of calculus in the bladder of children, but we never saw any such direful sequelæ of the practice as sloughing of the neighbouring parts. These two not dissimilar cases are instructive examples of that dangerous erysipelatous inflammation to which the parts in the perinæum are prone—quite independent of urinous extravasation. We cannot recommend too strongly in both the practice of incisions, a practice which, if not attended with uniform success, is so in the majority of cases when timely and boldly performed.

IV. PARTIAL PALSY CURED BY STRYCHNIA LOCALLY APPLIED.

An habitual drunkard, aged 56, was admitted into the infirmary, having suddenly lost the power of the left fore-arm and hand ten days previously. The sensation of the parts was perfect, but the power was much impaired—he had no head-ach—the bowels were costive after free purging—a blister was applied to the back of the fore-arm, and $\frac{1}{4}$ th of a grain of strychnia sprinkled over the vesicated surface. On each successive day the application was increased by adding the original quantity to that of the preceding day, till it amounted to one grain, after which $\frac{1}{4}$ th of a grain, instead of $\frac{1}{4}$ th, was to be added. From the second week the improvement was manifest, no obvious constitutional effect ensued, and the patient was dismissed cured at the end of five weeks from the commencement of the treatment. In another patient affected with paralysis of the flexor muscles, and diminished sensation of the right leg, a cure was effected in the course of six weeks.

V. AFFECTION OF THE LEGS RESEMBLING ELEPHANTIASIS.

A man at the age of 60 suffered compound fracture of both bones of the right leg, followed by inflammation and sloughing that protracted the cure for the space of five months. Shortly after this the legs began to swell; the swelling gradually extended upwards to the trunk; openings then formed in the scrotum, thighs, and legs, and gave issue to an immense discharge of watery fluid, in consequence of which the enlargement grew daily less, and at length the openings healed. Both legs still continued a little swollen, and nine months before his admission the right one began again to enlarge and to grow more firm, whilst ulcerated chaps broke out upon its surface. The left leg showed no increase for several months after this, when it ulcerated like the right. The urine was rather scanty, and he had been subject to dyspnoea for several years, but otherwise his health was good. On the 28th July, 18 months after the accident, he was

admitted into the Infirmary, with the right leg and foot more than treble their natural size; the swelling uniformly firm and resisting, though pressure produced a trifling pitting; the skin much thickened, and elevated into numerous small nodules along the fore-part of the leg and dorsum of the foot, but rough and covered with a scurf behind; in the interstices of the nodules superficial ulceration discharging a serous offensive fluid, forming brownish incrustations on exposure; the swelling of the leg and that of the foot separated in front by a fissure extending across the ankle-joint an inch and a half in depth, and sufficiently broad to permit the finger being passed to its bottom.—The left leg was swollen to nearly double its natural size, whilst the integuments on its lower half were ulcerated, and presented the same tuberculated appearance as those on the opposite limb.

Such were the history and symptoms presented by the patient, and the following the treatment had recourse to. On the 8th, he was ordered two grains of calomel, one of squill, and one of ginger, thrice daily, and applied locally a piece of caddis moistened with the lotion of two ounces of liquor potassæ to a pint and a half of water, whilst the limbs were likewise firmly bandaged.—The ulceration under this treatment soon dried up, the legs sensibly diminished in thickness, and on Sept. 4th, the surface of both had lost its fissured appearance. He generally voided 5lbs. of urine daily, under the use of the powders, which at the last mentioned dates were omitted in consequence of the mouth being affected, but the topical means were persisted in, and on the 13th of October the patient left the house. The left leg was at this time of its natural thickness; the right still continued a little enlarged, although the swelling was perceptibly subsiding.

The preceding case appears to me rather anomalous. I am altogether in doubt by what name it ought to be designated. So far as appearances were concerned, it certainly answered the description given of elephantiasis better than any other disease which I have either seen or read of. Nevertheless, from the history of the case, and

the result of the treatment, it may perhaps, be supposed to have been merely a chronic cedematous affection. I have to remark, however, that it was not recognized as being of this character by any of my medical friends who saw the patient a short time after his admission. The impression left after firm pressure with the point of the finger was exceedingly trifling; which may be easily explained, I apprehend, by the circumstance, that poultices had been applied to both limbs for a fortnight previously.

“Elephantiasis is a disease which originates in the subcutaneous cellular substance, and may therefore be said to consist in true hypertrophy of its structure. As the disease advances, this tissue acquires great increase of volume and density, ultimately affecting the skin, which becomes thickened, rugous, and elevated into tubercles. Several years ago, I had an opportunity of witnessing the examination of a leg affected with this disease, which was amputated by Dr. Robertson in the Royal Infirmary.—The cellular structure was 6 1-2 inches, and the skin upwards of one inch in thickness. The leg itself measured nearly four feet in circumference. On making longitudinal sections down to the fasciæ about a gallon and a half of serum drained off. The skin and contiguous cellular substance, to the depth of half an inch, were exceedingly dense. The latter became softer in texture as it was more deeply seated, and close upon the fasciæ the cells were greatly enlarged and contained serum, mixed with a glairy matter, something like white of an egg.—The fasciæ was thickened, but the muscles underneath were healthy, though somewhat pale. The disease had been of sixteen years' duration, and began after repeated attacks of erysipelas.”

That this was an affection resembling in a degree, and that not a very remote one, the elephantiasis, we are perfectly willing to admit; but we cannot go so far as Dr. Auchincloss has gone, nor consider the resemblance as actual identity. The scanty urine, dyspnoea, slight pitting upon pressure, and history of the disease, are closer traits of anasarca or cedematous affection than

Dr. Auchincloss would seem to think, and the rapid improvement under the exhibition of calomel and squills, with local pressure, are no mean items in the features of the case by which our judgment should be guided.—The right leg was that in which this curious affection, whatever it may be, had run to the greatest height, and this, too, was the limb that had suffered from compound fracture. Now every one must know how commonly oedematous affections are left as the sequelæ of fractures in a limb, and also how frequently these chronic infiltrations or affections of the subcutaneous cellular membrane will be followed by morbid action in the skin. We by no means say that the singular disease in the present case, was simply the result of the local injury, but we cannot allow, from several considerations, that it was absolutely the same as elephantiasis, nor indeed so like it as the able narrator has considered it.

One word before we part on the subject of amputations. Amputations, we are told, are all performed by transfixion with Lisfranc's knife, and this, says Dr. A. "is certainly a much neater, more speedy, and less painful mode of operation than by the double circular incision." We know not how it may be at Glasgow, but we know well that the highest surgical authorities here have come to just the opposite conclusion. In the majority of cases, the general opinion "certainly" is, that the flap operation deserves scarcely one of the commendations here awarded it.

LV.

WORCESTER INFIRMARY.

The following very curious case of Ischuria, with some remarks, is from the pen of Dr. Hastings, and published in the 4th number of the Midland Reporter.

On the 9th April, a female, aged 23 years was admitted into the Worcester Infirmary.

"She represented herself as having been particularly healthy. Within the last week

she had been exposed to cold, whilst the catamenia were flowing abundantly. For the first day or two, she only appeared to suffer from feverish symptoms. Soon afterwards, however, the secretion of urine became very deficient, and she had difficulty in passing it.

"On the evening of her admission she became much worse, and complained especially of pain and tenderness over the whole of the lower part of the abdomen, and in the loins. There was vomiting, and a disposition to convulsion. The lower part of the abdomen was much distended. The catheter was introduced and ten ounces of urine were drawn off; after which, the pain was relieved. She was ordered to take a scruple of cathartic extract immediately; and one drachm of sulphate of magnesia, dissolved in camphor mixture, three times a day.

"The next morning the bowels had not been moved. She was afflicted with severe head-ach, as well as the abdominal pains. She had passed no water, and was delirious during the night.

"She was cupped on the back, and had a blister applied, and took cathartic mixture every four hours till the bowels moved freely; after which she went into a warm bath.

"The symptoms remained for several days very much in the same state. Delirium usually came on during the night. No urine was passed by the natural effort, but about three ounces were drawn off by the catheter, in the course of 24 hours. She very frequently vomited, and suffered much from pain, tenderness and tension of the lower part of the abdomen. On the evening of the 17th, insensibility came on, for which a blister was applied to the back of the neck. The pulse was 60. An active aperient was given. On the 19th, no improvement had taken place, for the vomiting was incessant, and the pain in the abdomen and back was more severe. Pulse 80. She was bled three days in succession, with some alleviation of the pain, but the abdomen became generally enlarged and very tender. There also ceased to be any urine drawn from the bladder by the catheter.—

This continued to be the case for five days. The bowels were open. She took saline diuretics without avail.

"On the 25th, there was much vomiting, pain, and distention of the abdomen, but she passed a little urine. Pulse 80. She was bled to eight ounces.

"On the 27th, a bloody discharge appeared at the umbilicus, after which, the abdominal pain and tension were relieved. She also passed some urine by the urethra. The vomiting was, however, worse than it had previously been.

"The bloody discharge from the umbilicus, and the other symptoms, continued very much the same till the second of May, when there was a discharge of a urinous appearance and smell, from the umbilicus. She had passed no urine by the urethra for three days. The head was very painful; the pupils dilated; pulse 56; bowels costive. Some leeches were applied to the temples, and a blister to the back of the neck. A brisk purge was administered. The catheter was introduced, but no urine found in the bladder.

"This discharge of urine from the umbilicus, continued till the 5th, when the catamenia appeared, but quickly vanished. The abdomen became less tense and tender. There was not so much vomiting. The bowels were open.

"From the 7th to the 9th, there was no discharge of urine from the umbilicus, nor was there any passed by the urethra. As a consequence, the abdomen became much distended, and severe pain followed, with vomiting. The tension was most remarkable at the umbilicus, forming a circumscribed tumour.

"On the 10th, in the morning, six ounces of urine were drawn off by the catheter; and in an hour after, two quarts of urine, of the same appearance, gushed from the umbilicus. This was followed by much relief of the abdominal pains. The discharge of urine from the umbilicus, continued for three days, and was accompanied with great improvement of the general symptoms.

"The amendment, however, did not last, for the discharge from the umbilicus again

ceased, and for three days, the vomiting, the head-ach, the abdominal tension and pain, returned with their former severity.

"On the 17th, the catheter was introduced into the bladder, and no urine was found. In an hour after this, two quarts of urine passed from the umbilicus, and soon afterwards great relief was experienced.

"From this time to the 25th, there was little variation, but the young woman suffered during that interval very much from vomiting, and daily passed urine from the umbilicus. The catheter was passed every day, and no urine was found, but the bladder contracted strongly on the instrument; sometimes, immediately after the catheter was removed, a discharge of urine would take place by the umbilicus, and once, as much as three quarts were thus passed.

"On the 26th, for the first time after many days, four ounces of urine were drawn from the bladder. Each succeeding day, this quantity was now increased, and the quantity passed by the umbilicus, was diminished. There was also a general improvement of the symptoms, with the exception of vomiting. This continued obstinate. All this time, the medicine that she took was confined chiefly to the class of purgatives. Blisters were also applied to the neck and epigastrium.

"The bladder was regularly emptied every day by the catheter, for more than a month after this date, during which time, the abdominal pain and vomiting subsided, and there was no discharge from the umbilicus. Early in July, she began to pass some urine, and the power over the bladder was gradually restored. She was discharged in the middle of July, in tolerable health, but still often complained of pain in the pelvic region. She menstruated.

"*Observations.*—This curious case of Ischuria, is well worthy of consideration. The remarkable sympathy observable between the brain, the stomach, and kidneys, is common to all cases of this description, and is so obvious as not to require any further comment.

"The very remarkable feature in the case, is the occurrence of the urinary discharge

from the umbilicus, many days after the ischuria had been noticed. Such instances, although rare, are not without parallel in the annals of medicine. Schenck relates two instances of this kind. In the one, a male, the urine was discharged in consequence of an obstruction at the neck of the bladder, 'tanquam mictione ex umbilico' for many months, without any detriment to health. In the other, a female, and more resembling the one now related; 'cū suppressa per multas dies fuisset urina, tandem per umbilicum urinam profudit.'—Schenck Obs. Lib. iij. de Urina, p. 489.

"The interesting question is to determine in what manner the urine is conveyed to the umbilicus in these instances. The urachus offers itself as a mean by which the discharge may be determined to that part, and it seems probable, that in the case of mechanical obstruction related by Schenck, at the neck of the bladder, that a channel of communication was formed by the urachus, between the bladder and the umbilicus. But in the case we now remark upon, there had been no urine secreted into the bladder, long before its appearance at the umbilicus, nor was there for some time after. And the first discharge from the umbilicus, was not of an urinary, but bloody nature. We must, consequently, I think, regard the urinary discharge, in this instance, as vicarious, and as proceeding, probably, from the peritoneal surface. This view seems confirmed, by the great abdominal distention which took place for some time previous to the discharge from the umbilicus, when it was invariably found, from introducing the catheter, that the bladder was empty, and that it contracted on the instrument.

"Some cases of this description, have been placed upon record by eminent men worthy of great credit. There is none, perhaps, more deserving of attention, than that by Platerus, which is thus related by the renowned Sennerius. 'Puellæ cuidam annos natæ tredecim, cū aliquando copiosè minxisset, urinam subito suppressam esse, atque tunc aquam serosam ex aure dextra adeo affatim cœpisset effluere, ut una vice mensuræ duæ sepe emanarint, idque dies aliquot.' He then adds, that on diuretics being administered, the urine was passed

freely from the bladder, and the discharge from the ear ceased; but as soon as the diuretics were discontinued, the discharge again took place from the ear, but was altogether removed by general terebinthinate remedies, and local repellents to the ear. The health did not suffer.—Sennerti Opera, Lib. iij. p. viij. s. ij. cap. 9.

"In our case, it was evident that much inflammatory action was going on in the pelvic viscera, previous to, and during the discharge of urine from the umbilicus; and there was a considerable sympathy of the general health, with the local inflammatory action.

"I may further add, as a notice to this case, that the young woman was again admitted into the Infirmary, in May, 1827, for paralysis of the lower extremities, from which she recovered by appropriate remedies. The urine, for a time, was drawn off by the catheter, but there was no return of the former disease."

LVI.

LA CHARITE.

OBSERVATIONS ON NEURALGIC AFFECTIONS OF THE GENITO-URINARY ORGANS AND ANUS. By J. A. CAMPAGNAC, Eleve Interne, &c. des Hopitaux de Paris.

Spasmodic or neuralgic pains are occasionally propagated from the region of the bladder along the urethra, producing symptoms which lead to the supposition of urinary calculus. In some cases, the jet of urine is suddenly arrested, and then again flows. There is often frequent inclination to make water, which is sometimes scanty, sometimes glairy, but generally clear. On exploring the bladder in these cases, no stone will be found to account for the symptoms. Yet the interior of the bladder seldom evinces any inordinate sensibility when the sound is in-

roduced. In six cases of these neuralgic affections, which the author had observed in La Charité, during the last two years, one only evinced this morbid sensibility, under examination. This was a man who had been sent up to M. Roux from the country, evincing all the usual symptoms of stone in the most exquisite degree. The country surgeon had sounded the patient frequently, but could find no calculus. M. Roux and other surgeons examined with great care; but no stone was discovered, and the case was considered as genito-urinary neuralgia. The interior of the bladder exhibited the most exquisite sensibility in this case. In some, this inordinate tenderness is seated about the prostate gland, of which the following is an example.

Case 1. A brasier, aged 38 years, was brought to M. Roux by Dr. Cheneau. The patient had laboured under all the symptoms of stone for more than a year. When M. Roux got the point of the sound into the prostatic part of the urethra, the pain was insufferable. But after getting into the bladder, the pain soon abated, and M. Roux was able to explore the organ freely. No stone could be detected. The patient was put on a plan of soothing diet, and various medicines were employed, but the vesical pains continued most distressing, and nothing gave relief, but the introduction of the catheter. By the continued use of this instrument the irritability of the parts was entirely removed.

Case 2. Joseph Meunier, aged 48 years, had passed a small calculus at the age of 14. In the month of January, 1827, he was attacked, without any known cause, by pains about the neck of the bladder, extending along the urethra, and indicating stone in the bladder. The inclination to make water was very frequent. In this state he presented himself at the hospital to M. Boyer and M. Roux. He was twice sounded by these gentlemen, and at each operation, the pain was most terrible whenever the point of the sound reached the prostate gland,

but ceased when the instrument had got fairly into the bladder. No stone could be found. The urine, as in the first case, was clear and limpid. The man now observed that the phenomena above described first assailed him after the suppression of a periodical hæmorrhoidal flux which had been established for some years. He was advised to apply leeches frequently to the anus, to keep on a cooling diet, and to take the pills of Meglin, the composition of which we do not know.* He was an out-patient, and did not again return.

Case 3. Paul Poupen, aged 24 years, entered La Charité on the 12th December, 1827. Seven months previously, and after a pulmonary catarrh, he began to experience pain in the perineum, when the last drops of urine came to be expelled, which pain extended to the anterior part of the scrotum, and along the canal of the urethra. The pain was often so sharp as to cause him to stretch the penis forcibly. The urine had become glairy and thick, but the jet was never suddenly interrupted. The inclination to make water was frequent, especially during the day. About a month before he came to the hospital, he had taken several warm baths, and the urine, for a time, became limpid. Latterly the pain and frequency of making water had become so severe and distressing, that he applied to La Charité for relief. The jet of urine was now often interrupted for a few seconds at a time. M. Roux sounded the patient; but no stone could be found. The catheter produced exquisite pain in the prostatic portion of the urethra, but none when in the bladder. He was ordered a daily warm bath. In eight days the catheter was again introduced, but with less pain. The pills of Meglin were prescribed, together with camphor, nitre, and opium. By the first of

* We are rather surprised to see the most eminent French physicians and surgeons in the frequent habit of prescribing quack medicines—or, at all events, medicines under names and forms that are quite unintelligible beyond the barriers of Paris.

January, 1828, the irritability and the pains had entirely disappeared.

We need not detail any more of these cases:—they were all pretty nearly of the same kind, except that in some of them the pain invaded the anus. These cases are not very rare—and there are many people who experience pains along the urethra and towards the anus, for years and years, whenever they make water. These pains are always increased when the urine contains bile, or an over-proportion of uric acid. There is perhaps no better plan of relieving these neuralgic affections of the bladder and urethra than bland diet—dilutents—and the decoction of uva ursi with soda and hyosciamus. By these means the neuralgia in question will generally be removed or much mitigated.

LVII.

PHILADELPHIA INFIRM- ARY.

MALIGNANT INTERMITTENT. By Dr. JACK- SON.

The following case, reported in the American Journal of the Medical Sciences, is worthy of notice, as showing that very severe malarious intermittents will give way to low diet, change of air, and moderate local depletion, even without bark.

"*Case.* Chas. Cavanaugh, *ætat.* twenty-two, was admitted about 12 o'clock, reporting that he had intermittent fever. He had been engaged during the Summer at work on the canal at the Juniata, where he had contracted the disease; and of a gang of three hundred who left the city, he stated more than half were dead. It was originally tertian: for the last week it had assumed the quotidian type, coming on at two o'clock. This change has been effected by fatigue in travelling from the Juniata. Habits intemperate.

"When the chill was subsiding about two o'clock to-day, the fever commenced with the sensation of a violent blow upon the forehead, and immediately he jumped from

his bed, and ran about the ward with the wildness of maniacal delirium. Being overtaken and replaced, he appeared ignorant, on becoming better, that he had left his bed. At this period he was found labouring under a most violent excitement; he appeared almost distracted with the pain in his head; his respiration was exceedingly laborious; the skin very hot; and the pulse full, strong, and frequent; 3xij. of blood were immediately taken from his arm, and in a few minutes after he was completely relieved. 7 p. m. asleep, with his head covered; woke up alarmed; skin very hot; pulse full and frequent.

"5th.—Better this morning; the intermission is not complete; skin hot; pulse frequent; tongue moist and furred; eyes injected and jaundiced; absolute diet; hot revulsives to anticipate chill; the paroxysm in the afternoon was nearly as violent as that of yesterday; required two men to hold him in bed; his spleen was so engorged that it rose in a large ball under the hand; having some tenderness at the epigastrium, and a dry, furred tongue, he was ordered to be cupped freely.

"6th.—A tolerable intermission early this morning; tongue nearly clean. Ordered to take in solution a grain of sulphate of quinine every hour. Paroxysm came on an hour and a half earlier to-day; not so violent; mustard plasters were applied to his extremities when the chill threatened; tongue very much furred in the evening. Ordered cups again to epigastrium.

"7th.—His stomach still irritable; tongue foul; omit quinine; sinapisms when chill threatens. 9 p. m. Had no paroxysm this day.

"Discharged well, having had no return.—Case reported by Dr. JONES.

"*Remarks.*—This case was an intermittent of malignant character, threatening apoplexy in the paroxysm. The intemperate habits of this man, it is most probable, gave to his brain the predisposition which invested its sympathetic irritation when, in the febrile stage, it began to be irradiated from the stomach, with its extreme intensity.

"A full bleeding immediately arrested

the violence of the cerebral irritation, and diminished the congestion of the brain.—The same remedy would have been more freely urged, but for the habits of the patient, which always counter-indicate the very liberal employment of the lancet. The intemperate are very soon prostrated by general bleeding, and when they once begin to sink, it is almost impossible to re-excite them. This is one of the causes that render inflammations, and diseases requiring free depletion in their treatment, so generally fatal in those who abuse the employment of ardent spirits. They will not bear the treatment which can alone cure them.

"A circumstance in this case to be remarked, is the extraordinary suddenness with which the cerebral irritation commenced, and consequent raptus of blood to the brain. Cavanaugh insisted on it, he had received a blow, and for a time was unconscious of his situation. We have here presented the mode in which apoplexies, are induced, and which so commonly draw the cerebral irritation on which they depend, from gastric irritation.

It is also to be observed, that the sulphate of quinine was not tolerated by the stomach, the irritation of which it augmented, and that the cure was affected chiefly by attacking the gastric irritation, by low diet, cooling demulcent drinks, and local depletion."

LVIII.

EDINBURGH ROYAL INFIRMARY.*

1. PRIMARY AMPUTATIONS.

Case 1. Robert M'Gregor, 15 years of age, was admitted late in the evening of the 26th of January, having had his right arm drawn in to the machinery of a paper-mill at five p. m. The arm was torn off from the body about the middle of the humerus, and the extremity of the bone projected from the muscles. The laceration extended on the

inside into the axilla, and destroyed the inferior margin of the pectoralis major and latissimus dorsi. The skin for a short way on the back of the scapula was destroyed, together with a considerable part of the clavicular portion of the deltoid. The artery was seen pulsating about three inches from its end, which was closed by coagulated blood. No hæmorrhage had taken place, but the extremities were cold and the pulse feeble.

Amputation at the shoulder-joint by making a single flap of the deltoid was performed by Dr. Campbell, and four vessels only required to be secured. An opiate was administered and the patient went on well till the night of the first of February, when much secondary hæmorrhage took place from a small vessel which was therefore tied. At half-past 2 in the morning the ligature came away from the axillary artery, and bleeding followed to a material amount before the vessel was secured. An anodyne was given and the pulse was reported at 130 but stronger than on the preceding evening. For several days the patient was considered in imminent hazard, some sloughing having taken place from the edges of the wound, with a copious discharge of ill conditioned matter, and the pulse ranging from 125 to 150, with occasional rigors, and profuse sweats. The local treatment consisted in daily dressing with resinous ointment: the general, in the free exhibition of opiates, beef tea, and small quantities of wine. The cure went on without interruption or untoward event, the lad's appearance amended greatly, and Dr. Ballingall, at the period of his lecture considered him as out of the wood.

The following remarks are so just, that we cannot refrain from transcribing them without abbreviation.

"In my comments upon this case, I viewed it as illustrative of three important points, the spontaneous cessation of the hæmorrhage, in cases where limbs have been torn from the trunk; the question of primary and secondary amputation; and lastly, the mode of performing this operation at the shoulder joint.

* *Clinical Lecture, by Dr. Ballingall.*

"In illustration of the first point, I shewed you the portion of the humeral artery which was removed along with the remains of the arm, the internal coat of which was in some points slightly lacerated, while the external coat was over-stretched, and a considerable portion of it filled with coagulum. I referred you for farther illustration of the state of arteries after accidents of this kind, to a case detailed in the 19th volume of the *Edinburgh Medical Journal*, by Mr. Lizars, and to a very valuable paper, containing indeed all the information which we possess on this interesting subject, by Professor Turner, in the *Medico-Chirurgical Transactions* of this place. By the kindness of this last mentioned gentleman, I was also enabled to show you some drawings, exhibiting the state of arteries in accidents of this nature; where in some cases we find their internal coats completely torn through, and corrugated, or coiled up as it were, within the vessel, so as to prevent the effusion of blood.

"On the subject of primary and secondary amputation, we now possess a series of valuable observations, from the time at which it was made the subject of a prize question by the French academy in 1756, down to the present day; when the advantages of primary amputation are, I believe admitted by every practical surgeon, who is now enabled to add to his own experience that of the French army surgeons, as detailed in Baron Larrey's writings, that of the English army surgeons during the peninsular war, as detailed by Mr. Guthrie and Dr. Hennen, and that of the naval surgeons, as detailed in Mr. C. Hutchinson's work. One of the most striking illustrations of the successful issue of primary amputations, is contained in an extract from a report made by Dr. Burke, inspector of Hospitals to his Majesty's forces in Bengal, which has been made public by my friend Mr. Annesley, in his splendid work on the diseases of India. Dr. Burke states, that 'of eighty cases of amputation,' performed at Bhurtpore in Upper India, 'the whole recovered in 14 days.

"You must not, however, Gentlemen, expect to meet with the same proportional success in the amputations performed in civil Hospitals; at least, I am entitled to say, that the contrast between the success of primary and secondary amputations during the time that I have served in this house has by no means resembled that which I was accustomed to see and to hear of in the army. For these different results in military and in civil hospitals, many reasons, might, I think, be assigned, some of them more satisfactory than those mentioned by Sanson, who, in a recent paper upon this subject, has noticed the fact, but has, I think failed to give a very luminous or satisfactory explanation of it.

"In speaking of the operation at the shoulder joint, I remarked, that, although this operation has undergone many modifications, to some of which the names of Morand, La Faye, Le Dran, Larrey, Lisfranc, Broomfield, Alanson and others, have been attached, yet these may all be resolved into two modes of proceeding, either by forming a superior and inferior, or an anterior and posterior flap. I have myself operated in both ways, but not sufficiently often to enable me to institute any fair comparison as to the best mode of operating; I may however be permitted to remark, that in a very large proportion of the cases requiring amputation at the shoulder-joint, the soft parts are so lacerated as to leave us no choice, but to compel us, as in the present case, to form the flaps as circumstances best will admit. We are now well aware that the apprehension of an uncontrollable hæmorrhage, which alarmed our predecessors and made them slow to adopt this operation, is altogether unfounded; the bleeding may always be controlled by firm pressure above the clavicle, by the hands of a steady assistant; and, in fact, this compression, as my distinguished predecessor Dr. Thomson observes, has been found easier in practice than it appeared to be in speculation.' It is necessary, however, to remark, that at the moment of cutting through the axillary

vessels and nerves, the patient is apt to give an involuntary start, and may throw the fingers of the assistant off the artery; an accident which once happened to a gentleman assisting me in this operation, and by which I nearly lost my patient. I was for a moment completely blinded by the discharge of blood into my eyes from the open axillary artery."

Case 2. Charles Cuthbertson, ætatis 71, was admitted on the 18th of December with a comminuted fracture of the radius and ulna at their carpal extremities, an extensive lacerated wound of the left wrist, and a severe contusion in the lower part of the back, with a fracture of some of the ribs.

"Although, as I stated to you in the theatre at the time of the operation, I entertained little or no expectation of this man's recovery, I determined, after a few moments' consultation with my colleagues, to remove the arm a little below the elbow. It was obvious, however, at the first dressing, that no prospect of union existed; the lips of the wound, instead of presenting that wholesome turgidity and tension which presents itself in a healthy stump, were flaccid, somewhat livid, and apparently tending to gangrene; the smaller vessels (if I may use the expression) had not taken up, but had poured out a quantity of grumous blood which flowed through the dressings; at the same time the patient began to complain of oppressed breathing, and symptoms of inflammatory action within the thorax, so that he had to contend with all those difficulties which you may suppose to exist in the case of an old man labouring under acute inflammation within the trunk, and gangrene in one of the extremities. Amidst a choice of evils, the abstraction of a limited quantity of blood was tried but without any good effect, and the patient died during my temporary absence in London, about eight days after the receipt of the injury. No report of the dissection appears to have been entered in the register, but I am told that the whole of the ribs on the right side, with the exception of the two inferior ones, were found

fractured, and some recent deposition of lymph on the pleura.

"This case, Gentlemen, I am induced to mention, not from any very instructive lesson to be gathered from its progress, much less for any thing very unexpected in its event, but to caution you against an accident which occurred during the operation. While passing the knife through the forearm, from the radial to the ulnar side, for the purpose of forming a posterior flap from the extensor and supinator muscles, its point slipped between the bones, which rendered it necessary to withdraw it and to pass it more carefully behind the ulna; this was perhaps owing partly to my inadvertence to the exact position of the bones, but partly, I believe also, to the connection between the lower extremities of the radius and ulna having been broken up, so that in pressing the knife close to the back of the radius, with the view of obtaining a sufficiency of muscular substance to form a good flap, the parallelism of the two bones was in some measure destroyed, the radius was pressed forwards, and the interosseous space thus presented to the point of the knife."

II. SECONDARY AMPUTATION.

Case 1. Helen Coghill, æt. 21, was admitted on the 8th of October, with the left knee swelled, hot and painful; severe pain in the condyles of the femur on moving or pressing the patella; limb retained always extended; pulse natural; tongue clean; bowels regular. She stated that after a fall, received ten years previously, the joint was first inflamed, and eighteen months ago, after a similar accident, the inflammation was much increased, and had been more severe than even in the seven weeks preceding her admission. Leeches, opium, moxas, &c. were the means employed, but without the least effect in arresting the disease. The sufferings of the patient were very severe, the constitution sympathised, and under these circumstances that dernier resort, amputation, was performed on the 5th of December. The joint, on examination, was

found to be extensively diseased, its cartilages being either completely destroyed, or detached altogether from the bones. The patient for some days was harassed with nausea and occasional retching, with her pulse varying from 136 to 140. The general appearance, notwithstanding, was improved, and although superficial ulcerations took place upon the back, the stump put on a very promising appearance, and the greater part united by the first intention. On the 3d of January she left the house, but after this, small phlegmonous swellings formed and burst in the line of the cicatrix.

"You would observe, Gentlemen, that in amputating this young woman's thigh, instead of forming two lateral flaps, as I had hitherto been accustomed to do, I formed an anterior and posterior flap, the one from the extensors on the fore part, and the other from the flexors on the back part of the thigh. This is a mode of operating which I first saw practised by Mr. Liston in the cases of two boys whom he operated upon in the house last autumn; and in the case of such young subjects who cannot readily be made to retain their stumps in a desirable position, but are constantly inclined to elevate the point of the stump, it appears to me to offer decided advantages; in the first place, it obviates the projection of the bone between the lateral flaps, which I am told has sometimes occurred, and, in the next place, you will see that the more the point of the stump is elevated, the more are the extensor muscles relaxed so as to afford a covering for the point of the bone. Other collateral advantages attendant upon this mode of forming the flaps are pointed out in a paper of Mr. Creasars, formerly of the Bath Infirmary, in the 22d volume of the Edinburgh Medical and Surgical Journal, although he indeed recommends the flap to be formed by cutting from the surface towards the bone, instead of transfixing the limb and cutting outwards.

"The plan of dressing stumps after the common circular amputation of the thigh, so as to place the line of the cicatrix transversely, instead of perpendicularly, you will find advocated both by Mr. Guthrie and by Mr. Copland Hutchison, the latter of whom,

in the first edition of his Surgical work, gave a marginal sketch well calculated to illustrate his valuable remarks upon this point."

Case 2. J. Browne, æt. 37, a seaman, having lost all his toes in consequence of exposure to great cold twelve months previously, on the coast of Norway, was admitted with extensive ulcer and destruction of skin on the under surface of the left foot. Dr. Ballingall being satisfied that no firm or permanent cicatrix was likely to be formed unless the metatarsal bones were removed performed an operation for that purpose on the 4th of November. It consisted in making an incision convex anteriorly from a little beyond the base of the first metatarsal bone to the most extreme point of the base of the fifth, and forming a flap from the integuments on the dorsum of the foot. The four outer metatarsal bones were then disarticulated, the internal cuneiform sawn through, and a corresponding flap formed from the integuments of the sole. The two flaps thus obtained were united by three points of the interrupted suture. Partial union by the first intention was procured, but an attack of the erratic erysipelas succeeded, which protracted the cure. However, he was able to leave the infirmary on the 5th of January, for London. Had the great destruction of the soft parts in the sole not proved a bar to such a proceeding, Dr. B. would have greatly preferred a large single flap from that part turned up over the anterior extremities of the tarsal bones, to the double one, which circumstances forced him to adopt. The cicatrix on the dorsum of the foot is much the least liable to injury in walking.

III. RECTO-URETHRAL FISTULA.

Every one must know how troublesome a class of cases are these fistulous communications between the pelvic outlets of the body. The recto-vesical, recto-vaginal, and

recto-urethral fistulæ are too often the opprobrium chirurgicum, and productive of more misery in the minds of patients than what might be deemed more serious maladies. The particulars of a case related by Dr. Ballingall are of practical importance, as shewing, what too rarely happens, the cure of the disease by the actual cautery.

Walter Hay, æt. 45, who was cut in the hospital for fistula in ano, and discharged almost well, returned with a difficulty in passing his water, the half of which was discharged from the anus. A large catheter was easily passed into the bladder and the right lobe of the prostate found to be enlarged, hardened, and painful upon pressure. The introduction of the speculum ani distinctly showed the orifice of a sinus between the urethra and rectum, and a probe directed through it was made to grate upon a catheter previously passed into the bladder. On the 10th of November, the patient was taken into the operating theatre, and a full sized catheter attempted to be introduced, but without success, in consequence of the inflammation and swelling excited by the former examinations. The rectum, however, being well dilated with the speculum, the callous edges of the fistula were cauterized by the red hot iron. Next day fourteen leeches were required on account of pain about the parts, but on the night of the 12th, the swelling, &c. had so much abated that an elastic catheter was secured in the bladder, in which it was continued for upwards of a fortnight. The whole of the urine was evacuated through the instrument, but the latter producing a puriform discharge from the urethra, was withdrawn at the end of the before-mentioned time. The discharge in question gradually subsided, and on the 6th of December the patient was dismissed cured.

"The cure," says Dr. Ballingall, "from a single application of the cautery was more than I anticipated, and was no doubt greatly facilitated by the free and pervious state of the urethra, and by our being enabled to introduce a full-sized catheter into the bladder soon after the application of the cauterizing iron, before the eschar occasioned by it was detached. But while this open state of the natural passage obvi-

ously contributed much to the cure, it presents to me a very considerable difficulty in accounting for the formation of this fistulous opening, which was more than an inch within the extremity of the gut."

However difficult the rationale of the case may be, it is certainly true that abscesses connected with the urethra, fistulæ, and even formidable extravasation of urine will sometimes occur when no stricture can be found in the canal. They depend probably on the same causes which occasion inflammation and its consequences elsewhere, although the single and preponderating one of stricture is apt, and naturally so, to attract the whole of our attention. Abscesses form in the neighbourhood of the rectum, and open in its cavity without any mechanical obstruction of the gut, and we see no good reason why the same should not sometimes be the case with the urethra. Its rarity is to us more surprising than its occurrence.

LIX.

WESTMINSTER HOSPITAL.

INJURIES OF THE HEAD.

Susan Randall, aged 4, admitted, having a wound of the head. She was playing with her brother, when he struck her on the head with a rake, one of the teeth of which pierced the cranium near the anterior fontanelle and opened the longitudinal sinus; she lost a good deal of blood and complained very much of pain in the head on first coming in, but shortly afterwards appeared rather lethargic.

Cold lotion to be applied to the head.
Pulv. Rhei cum Cal.

Feb. 1st.—There is still a good deal of pain in the head, particularly at the wound and in the forehead: there also seems to be a slight paralytic affection of the right arm and leg; she can move them, however, though not very freely. The powder to be repeated, and three leeches applied to the head.

4th. The pulsation of the arteries may be distinctly seen through the wound;

pain in the head appears diminished except at the injured part. The leeches to be repeated.

5th. She is very lively to-day; moves her right arm and leg more freely and seems free from pain.

9th. Does not complain of pain; can move her arms and legs with ease; there is a slight discharge from the wound.

11th. Complains of a little pain in her arm and head, especially when the wound is touched.—Pulv. Rhei cum Cal.

12th. Child seems a little better; a scab has formed over the wound.

14th. Matter collecting under the scab, which is therefore removed.

21st. Wound looks better; but the child is feverish.—Pulv. Rhei cum Cal.

23d. Wound has partly healed; a small sinus about half an inch in length has formed under the scalp which has this day been opened; the child looks very pale; bowels confined.—Haust. Cathart.

March 7th. Complains occasionally of a little pain in the head; the wound is healing up and discharges very little.

14th. The right leg swells a good deal, especially at night; she seems better.

26th. Both legs œdematous; the right heel is very much swelled and inflamed.

April 2d. Child is rather worse; looks very pale; does not sleep well at night; has no appetite; the right leg swelled, and an abscess is forming in the heel, which is to be poulticed. Is taking Pulv Rhei cum Cal. et Potass. Supertart. daily.

4th. An abscess having formed in the heel it was opened and a good deal of matter discharged. To continue the poultice.

6th. Child is a little better, but still looks very ill; matter is again collecting under a scab which has formed over the wound; it is to be removed.

8th. Yesterday complained she could not see, and was continually rubbing her eyes; her bowels well open; she had a small blister applied to the nape of the neck, which has very much relieved the symptom; the abscess in the heel was re-opened as matter had again collected there.

From this time the child began gradually to recover; the swelling of the leg disappeared; the wound healed; her appetite improved; and in the beginning of May she was discharged quite well but looking rather pale.

Mr. Guthrie, in his clinical remarks on this case, drew the attention of the students to the fact that the longitudinal sinus had been opened, without much inconvenience ensuing. He said he had seen it happen several times, but without ever giving rise to serious annoyance,—the hæmorrhage stopping of itself in a short time. From the firm attachment of the dura mater to the bone, it did not allow of the formation of a coagulum sufficiently large to give rise to symptoms of compression. The partial commencing paralysis he rather attributed to irritation arising from the action of a slight irregular edge of bone on its internal surface. The surgery in this case he said consisted in examining the wound with a probe, in such a manner as to ascertain that no internal irregularity exists, in which case the common antiphlogistic means would alone be sufficient to effect the cure. When an irregularity or depression of the internal table is discovered, the bone should be immediately removed, so as to leave the dura mater, or the brain itself free from an irritation of that nature. The motions of the brain could in this case be seen very distinctly for several weeks, constituting, Mr. Guthrie said, altogether one of the most valuable cases a student could see in the surgery of injuries of the head, more particularly when contrasted with others, then before them.

Case 2. Frank Collins, aged 30, admitted March 30th, having received three wounds on the head, made by the edge of a pewter pot. One on the left side of the frontal bone, divided the pericranium, and rendered the surface of the bone rough. The edges of the wounds were brought together by adhesive plaster, 30 ounces of blood were taken from the arm, and he was ordered to be severely purged, and to be starved.

On the 5th of April the wounds had united, and the patient left the hospital. 12th. Returned to show himself quite well.

Case 3. John Esset, æt. 25, admitted March 27th, at 4. a. m. having fallen, when in a state of intoxication, from a window two stories high;—on examination, the left side of the face was very much bruised and there was a long, deep cut just below the eyebrow; the radius and ulna of the left arm were broken

about two inches from the wrist. He had six leeches applied to his face. At 7 o'clock he fell asleep and awoke about 11, complaining of great pain in the left side just below the ribs, and headach; his pulse since his admission has been slow and compressible; he cannot lie in any position except on his right side.—

Venæ Sectio ad 3xvj.

28th. Pulse much quicker, 80; pain in his head and side continues, but is not so severe; the whole face is much swelled; the wound to be poulticed.

Venæ Sectio ad 3xvj.

R Liq. Amm. Acet. 3ij.

Syrupi. 3iv.

Aquæ 3vj.

M Cap. Cochli. iii L. 4tā. q. q. horā.

30th. Pain in the head nearly gone; no pain in the side; bowels rather confined.—Pergat.

April 2d. Much better; the face and eyelids so much swelled, that the eye cannot be seen; wound is not looking very well; pulse sharp and quick. Pergat.

4th. The wound looking better; swelling diminished; no pain in the head; bowels open.

6th. The edges of the wound to be kept together by strapping. The arm has remained quite easy in the splints.

13th. Wound nearly healed; can just raise the eyelid, but finds that he cannot see with that eye; there is only a little speck on the cornea, and slight redness of the conjunctiva. He went out of the hospital at his own request a few days afterwards perfectly well in all respects, save that he had lost the sight of the left eye, without the slightest appearance of defect or disorganization about it.

Mr. Guthrie said that this case confirmed the observations he had made on the injury

of the fifth pair of nerves, in his work on the Operative Surgery of the Eye. When treating of wounds of the eyelids he there stated, in opposition to all the opinions extant on the subject, that the pupil, in cases where blindness occurred from an injury of this nature, was not dilated, neither was it deficient in any of its sympathies, although it had been previously maintained that the pupil was dilated, and the iris deficient in its functions. This case, he said, proved the reverse, and therefore it was he begged their attention to this particular case.

Case 4th. William Walters, aged 10, admitted May 31st, under the care of Sir A. Carlisle. He fell 36 feet, from the roof of a house, upon his head. At the time of his admission he was rather in a comatose state; complained of pain in the head, and answered questions rationally. There is a considerable tumefaction in the occipital region on the right side of the head, and fluctuation is here very distinct; pulse low and rather irregular; about an hour and a half after his admission, however, his pulse rose to 120; cannot bear the light; vomiting came on.

Venæ sectio ad 3vj.

Pulv. jalapæ comp. 3ss.

June 1st. Does not complain of any pain; bowels confined. Ordered an injection and purgative medicine.

2d. The tumour was opened and a quantity of bloody fluid discharged; the injection was repeated yesterday evening, but his bowels have not acted yet; the injections to be continued. Haust. olei. ricini.

3d. Yesterday, at 4 o'clock, had a stool for the first time since his admission.

5th. Quite well; left the hospital.

Miscellaneous.

LX.

MR. WARBURTON'S BILL.

The bill for legalising dissection of human bodies, and for facilitating the study of anatomy, has been withdrawn, or, in other words, lost, in the house of Lords. It requires not the gift of prophecy to foretell that the whole measure is lost with it—for,

if any other bill be introduced and passed during the ensuing session, (which we very much doubt,) it will be saddled with such restrictions, and crippled with such difficulties as will nullify any salutary operation that may be expected from it. The late abortive attempt in Parliament has rendered more manifest to the public than ever, the wretched and distracted state of the

medical profession in this country! Such an anomalous and mis-shapen monster has never been fabled by poet's imagination—

"Monstrum horrendum informe, ingens cui
lumen alempitum."

If we were called upon for a definition or brief character of it, we would say that it consists of—"three BODIES without a HEAD—and some thousands of MEMBERS unattached to any of the BODIES—except by some shreds of *perched* skin." That such a heterogeneous monster should be capable of any combined, simultaneous, or regularly progressive movement, is not to be expected. The late transaction has afforded a fine illustration. The anomalous animal in question did feel aggrieved, and contrived, though with much difficulty and awkwardness, to make its grievances known—at first through its MEMBERS, and ultimately through its BODIES. There was more unity of sentiment respecting the nature, cause, and remedy of the malady, than might have been expected—but no sooner was a prescription offered for the disease, comprehending the main remedial agents for its removal, than a hue and cry was set up about the formula of the prescription, and about certain trifling and unimportant ingredients in the mixture, which completely puzzled the doctor, and caused all thoughts of cure to be abandoned!

To drop metaphor. The profession has long laboured under the difficulties attendant on the study of Anatomy, and at length induced the legislature to entertain a measure for their relief. A zealous member of the House of Commons, and a liberal committee agreed on the *fundamental principles* of a bill for the measure in question—these fundamental principles being the legalising of dissection, and of surrendering unclaimed bodies for the purposes of anatomy. These principles formed the prayer of every petition to the Legislature from the members and the bodies corporate of the profession. Well! A bill was prepared embodying and embracing these principles, but encumbered with certain regulations which were of little importance, compared, at least, with the good which was to be obtain-

ed. The bill passed the House of Commons; but before it could reach the House of Lords the members of the profession were all in arms about the minor enactments of the bill—and the POPULAR PRESS was actually fed, from day to day, by traitors from the ranks of medical society, with the most inflammatory attacks on the fundamental principles of the bill! The business was not confined to covert acts. The medical press added fuel to the flame—and, strange as it may seem, petitions against the bill were, at one and the same moment, on the table of the House of Lords, from Churchwarden Wakley and the College of Surgeons! The ground of Mister Wakley's opposition was, that the bill would give increased power to the College of Surgeons—the opposition of the College was founded on the supposition that the bill would deprive that body of all its best privileges and powers! Such a monstrous coalition as that of WAKLEY and the COLLEGE of SURGEONS, must end either in an abortion, or in the evolution of some shapeless, inhuman, and caliban birth, such as a Shakespeare only could shadow forth. We do not deem it necessary to expend much time or space on this matter. We may only observe that the want of unity—in other words, the want of a HEAD or of a HEART in the medical profession, by which any measure of amelioration could be properly and quietly urged on the attention of the Legislature has given rise to such a profusion of *popular* appeals to the public, as to raise a host of prejudices among the *vulgar*, in all ranks of society, that will not be easily subdued.

We hazard then a prophecy—that so good a bill as that which has been rejected will never again pass the Legislature—at least in our days! And, as a comfort to Churchwarden Wakley, we prophecy that, if a bill come forward in the next session of Parliament, it will be under the auspices of the COLLEGE of SURGEONS—and will give to THAT BODY ten times the powers and privileges which he, in his usual ignorance and perversity of intellect, supposed the late bill would have given! Let him reg-

ister this prophecy, and upbraid us with its nonfulfilment if he can.

LXI.

CURE OF CONSUMPTION. By ST. JOHN LONG.

Our readers must have seen the long list of cures lately blazoned forth in the John Bull and various other newspapers, by the wonder-worker of Harley-street.

By the Post of this morning (June 15th) we received two newspapers, Bell's Weekly Messenger, and the Leeds Mercury. In the former was printed very conspicuously the letter with its testimonials (No. 1.) In the latter (Leeds Mercury) a single line dispelled the fair illusion of hope on one hand, and unprincipled mendacity on the other! Mr. St. John Long, and his puffers require some strong opiates to make them sleep with easy consciences.

(1.)

London, Aug. 17, 1828.

My dear Sir,—For seven years previous to placing myself under your care, I suffered great general debility, with violent cough, and expectoration, and was dreadfully emaciated. I was also afflicted with spitting of blood, pains in the chest and side, extreme difficulty in breathing, could not lie down in bed without a chair, for my support, and despairing of recovery. Now my flesh has become firm and healthy, I have appetite, can sleep and walk five or six miles without much fatigue. c.

MARTHA HUDSON.

Hipperholm, Halifax, York-
shire, Feb. 16, 1829. }

It is some months since I left your care and I have gone on progressively gaining health, having stood the severity of the winter months astonishingly well, though a cough still remains. The full history of my case is recorded in your book, which bears testimony of the merits of your important discovery. Gratefully yours,

MARTHA HUDSON.

We whose names are under-written, with pleasure attest the truth of the above statement:—

RICHARD HUDSON, M. A.

Father of Martha Hudson.

RICHARD HARTLEY, D. D.

Brother-in-law of Martha Hudson.

(2.)

DIED.—On Saturday last, at Hipperholm Martha, the second daughter of the Rev. Richard Hudson.

Our readers will also remember that in the 18th Number of this Journal, (Sept. 1828,) page 533, we stated the case of a young man residing at Kensington, (the late Mr. Don) said to be under cure for confirmed consumption by St. John Long. If the reader will look back to the article, it will be seen that we pronounced the lungs to be sound.

A few weeks ago Mr. Don was seized with enteritis, and died in four days. Several medical gentlemen examined the body, and lo! the lungs were found perfectly sound, and no trace of tubercles or other phenomenon of phthisis in the chest!

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2. Cours de Physiologie Générale et Comparée Professé à la Faculté des Sciences de Paris. Par M. DUCROTAY DE BLAINVILLE, &c. &c. Livraison, 8vo. Paris, 1829.

3. No. 3 of the Annals of Chemical Philosophy, &c. By WM. MAUGHAM,

Surgeon, Lecturer on Chemistry, Materia Medica, &c. 8vo. pp. 240, price 2s. 6d. April, 1829.

4. The Study of Medicine. By JOHN MASON GOOD, M. D. F. R. S. &c. Containing all the author's final corrections and improvements. 3d Edition, with much additional modern information on Physiology, Practice, Pathology, and the Nature of Diseases in general. By SAMUEL COOPER, Surgeon to the King's Bench and Fleet Prisons; Surgeon to the Forces, &c. &c. In 5 volumes, 8vo. 1829. Underwoods.

5. Pathological Observations, Part 2, on continued Fever, Ague, Tic Douloureux, Measles, Small Pox, and Dropsy, &c. By WILLIAM STOKER, M. D. &c. 8vo. pp. 267. 1829.

6. Harveian Oration for MDCCCXXIX; being a Tribute of Respect for the Memory of the late Andrew Duncan, Sen. M. D.—By RICHARD HUIE, M. D. &c. &c. 8vo. stitched, pp. 28, Edinburgh, 1829.

7. An Essay on the Symptoms of Pregnancy, from the Earliest Stage to the Period of quickening, &c. to which was awarded Dr. Hopkins's Prize Gold Medal for 1828-9. By JOHN MORLEY. 8vo, stitched, pp. 48. London, 1829.

✍ A very creditable Essay to the Author, and one which well deserved the honourable mark of distinction conferred on it by that zealous teacher, Dr. Hopkins.

8. The Evidences against the System of Phrenology, being the Substance of a paper read at an Extraordinary Meeting of the Royal Medical Society of Edinburgh. By THOMAS STONE, Esq. 8vo. pp. 75. Edinburgh, 1828.

✍ Without entering into the controversy, we will venture to say that Mr. Stone has evinced great research and literary talent of a very high order in the composition of this work—We hope to see the same research and the same talents employed on more strictly and professional subjects

9. The Influence of Climate in the Prevention and cure of Chronic Diseases, more particularly of the Chest and Digestive Organs, &c. with an Appendix containing a Series of Tables on Climate. By JAMES CLARK, M. D. &c. 8vo. pp. 328. London 1829.

10. A Treatise on Syphilis; in which the History, Symptoms, and Method of treating every Form of that Disease, are fully considered. By JOHN BACOT, Surgeon to the St. George's and St. James's Dispensary, and lately surgeon to the Grenadier Regiment of Foot Guards. 8vo. pp. 280, London, 1829.

11. Travels in Turkey, Egypt, Nubia, and Palestine, in 1824-5-6 and 7. By R. R. MADDEN, Member of the Royal College of Surgeons. In 2 volumes Octavo. June, 1829.

12. Management and Diseases of Infants under the Influence of the Climate of India, &c. By FRED. CORBYN, Esq. 8vo. Calcutta, 1828.

13. Anti-Phrenology, &c. By JOHN WAYTE, M. D. 8vo, pp. 97. Lyn. Regis, June, 1829.

14. Scriptores Ophthalmologici Minores. Vols. 1 and 2. Edidit JUSTUS RADIUS, Philos. Med et Chir. Doct. &c. Cum Tabulis Æneis. Lipsiæ, 1826-28.

✍ Germany is famous for learned Physicians, and Dr Julius is justly esteemed one of her present luminaries. The two small volumes above-mentioned are written in Classical Latin, and contain a great body of important information on Ophthalmological subjects, together with numerous references to the best writers on the Diseases of the Visual Apparatus, and the Operations necessary for their Cure.

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18. An Account of the morbid appearances exhibited on Dissection in Disorders of the Trachea, Lungs and Heart, with Pathological Observations, to which a Comparison of the Symptoms with the Morbid Changes has given rise. By THOMAS MILLS, M. D. Honorary Fellow of the King and Queen's College of Physicians. 8vo. pp. 302. Dublin and London, 1829.

19. The Anatomy, Physiology, and Diseases of the Teeth. By THOMAS BELL, F. R. S. F. G. S. &c. Lecturer at Guy's Hospital, and Surgeon-Dentist to that Institution. 8vo. pp. 330, Eleven Plates. Highley, London, April, 1829.

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INTELLIGENCE, CORRESPONDENCE, &c.

DEATH OF MRS. DENMARK.

MRS. DENMARK, respecting whose case there have been so many investigations and conjectures, has died at length. The surgeon, Mr. H—, under whose care she had been originally, and who, it is very well known, has attended her lately, was anxious of course to be present at the post-mortem examination. We learn, however, from a paragraph on the subject in the London Medical Gazette, that it was only after some unexpected objections, from what quarter is not stated, that he obtained permission to attend. "The reader," says our contemporary, "may judge of his astonishment, when, on arriving, he found that the dissection had already been completed by Mr. Wardrop!—owing, it was stated, to this gentleman not having received his message."

THE
Medico-Chirurgical Review,

N^o XXII.

JULY 1, TO OCTOBER 1, 1829.

I.

ON FEMALE DISEASES.

1. COMMENTARIES ON SOME OF THE MORE IMPORTANT OF THE DISEASES OF FEMALES. By *Marshall Hall*, M. D. &c. 1827.
2. AN ACCOUNT OF SOME OF THE MOST IMPORTANT DISEASES PECULIAR TO WOMEN. By *Robert Gooch*, M. D. 1829.

[ART. I.]

THE appearance of Dr. Gooch's work reminded us of a promise made in October 1827, and not yet fulfilled. We then reviewed the *first part* of Dr. Hall's book, and announced our intention of dedicating an article to the second part. We are not sorry that some delay has taken place, as it will enable us not only to exhibit a careful analysis, but to institute a parallel between the works of two highly talented physicians.

In deference to seniority, and because it will best suit our plan, we shall commence this article with the second part of Dr. Hall's book. We may premise, however, that Dr. Hall's observations relate to those puerperal diseases which are *sporadic*:—those of Dr. Gooch, chiefly to the epidemic form of these diseases; except indeed what relates to the subject of puerperal insanity. This is the *first* distinction to be made in the investigation of the class of puerperal diseases; for however similar these two parts of the class may be, they are so greatly modified as to be of very different prognosis, the sporadic, being far less fatal than the epidemic.

Dr. Hall first treats of puerperal diseases in general, tracing their various causes, and the various co-operation of those causes in their production.

Puerperal diseases "may be divided into those which occur in the earlier and in the latter periods of pregnancy,—immediately before, and after, and during the act of parturition,—during what is termed the puerperal state,—and during the period of lactation."

In the early period of pregnancy many organs suffer, in consequence of the source of irritation then set up in the system. In the latter periods, general causes combine their influences to endanger the state of the brain; these are chiefly uterine and intestinal irritation, concurring with the actual pressure of the gravid uterus upon the various viscera and vessels situated behind it, and the state of plethora of the vascular system occasioned by this pressure. During parturition the contractile efforts of the uterus and of the abdominal muscles, add another source of danger to those already mentioned. Several sources of danger are removed when delivery has taken place; and yet this is not always sufficient to protect the patient from

an attack of convulsion. Such an attack may occur after delivery, or even although the system be in a state of exhaustion from hæmorrhage, a state which is not incompatible with congestion of the brain. This last point is particularly insisted upon by our author, and so it is, as we shall have to state presently, by Dr. Gooch. Immediately after delivery the emptied condition of the uterus and abdomen may co-operate with loss of blood in inducing a state of inanition or exhaustion. To these sources of puerperal diseases, obtaining immediately after delivery, must also be added another not less important, viz. the effects of protracted suffering, of violent pain, of mental alarm, and of the "shock" of parturition. The next series of morbid affections are those more generally esteemed puerperal, and do not occur until some hours after delivery. They are intestinal irritation, the effects of loss of blood, and uterine or peritoneal inflammation. There are also two sources of irritation in the condition of the mammæ and of the uterus. Dr. Hall has particularly insisted upon "mixed cases," or cases which result from the co-operation of two or more of these causes of puerperal diseases; an important point. Lastly, there are the various forms of epidemic puerperal disease. After puerperal disease, properly so called, an interesting object of enquiry presents itself in the effects of undue lactation.—These are treated of at length in the third part of Dr. Hall's work, though we think they had better have formed the concluding part of this. The effects of undue lactation have not been so fully discussed before; and probably Dr. Hall was well fitted for treating this subject on account of his well-known attention to the effects of loss of blood, for it is only another form of exhaustion. The previous state of the health of the patient is also important to be considered in estimating the precise nature and character of puerperal disease.

From those views it is plain that there are several distinct cases of those puerperal diseases which occur sporadically. These are inflammation, intestinal irritation, and exhaustion from loss of blood; besides which, there are "mixed cases" which combine two or more of these. And all are apt to be further modified by the circumstances of uterine or mammary irritation. It is equally obvious that the treatment of different puerperal cases must be very different, and that, in those which prove fatal, the morbid appearances must not only be very different, but in some absent altogether.—If, as we suspect, under the common designation of puerperal fever, all these various forms of disease have frequently been comprehended, we cannot feel surprised that discrepancy of opinion in regard to their treatment should have so long prevailed.

The first part of Dr. Gooch's work treats of *epidemic* puerperal diseases. It is well known how completely and how dreadfully the character of these affections is modified by this circumstance of their epidemic prevalency. Yet it is singular that very similar differences obtain in the epidemic and in the sporadic forms:—some recover under the prompt and efficient use of the lancet; others do not bear blood-letting;—some present all the traces of inflammatory action, on inspection after death; others leave no morbid appearances; as might be expected, the most successful modes of treatment are equally dissimilar. These points are alike insisted upon by both the authors before us; as one treats of the sporadic and the other of the epidemic disease.

In the sporadic puerperal peritonitis the pathognomonic symptom is tenderness of the abdomen, increased, or perhaps only discovered on pressure;

this pain, besides varying in degree, may be partial or general. There is frequently rigor, but not always, and perhaps not of the severest kind; the skin is not always hot, nor the pulse extremely frequent; there is not necessarily pain of the head. The chief object of attention is the state of the abdomen. The patient does not easily faint if placed upright and bled. The disease either subsides or passes into the sinking state.

This affection is too well known to need to be exemplified, in this place, by cases.

In intestinal irritation there may be equal, nay, severer pain and tenderness of the abdomen; severer rigor; greater heat of the surface; and more intense pain, perhaps with throbbing of the head, and even intolerance of light and noise. This disease is, indeed, frequently marked by more urgent symptoms than inflammation. There is greater susceptibility to fainting on taking blood: the stomach or the bowels are more obviously disordered; and the symptoms are relieved by emetic, aperient, and opiate remedies. Dr. Hall observes, in regard to this disease—

"I have scarcely had an opportunity of examining the state of the internal organs after death; for in general the patients affected by intestinal irritation have recovered. But I have no doubt that such an examination would illustrate the following important remark of the late Dr. Denman:—'We have been told, that in the dissection of some who are said to have died of puerperal fever, no appearances of inflammation have been discovered; but I should suspect that, in such cases, some important appearances had been overlooked, or that errors had been committed as to the nature of the disease, and probably in its treatment.'

"A due consideration of the effects of intestinal irritation will also serve to elucidate other cases of morbid affection, in which the appearances of inflammation were looked for on dissection, but were not found. This observation applies particularly to affections of the head, heart, and abdomen.

"In several cases of this morbid affection, which I had the opportunity of examining many years ago, no morbid appearances were found on the most careful inspection." 201.

The subject is illustrated by numerous cases. Of these, some plainly depended upon indigestible substances taken; in others, upon the state of the bowels; in the former case the head is chiefly affected, in the latter, both the head and abdomen, together or separately, but chiefly the latter. We shall select a case or two in illustration.

Mrs. —, aged 35, continued well for several days after delivery, until she partook of some ham; she soon began to complain of pain of the head, and vertigo; on going to bed the pain and vertigo increased, and she became affected with rambling and starting, with great intolerance of light, so that she complained bitterly on a candle being brought into the room, and with equal intolerance of noise and disturbance. The pain of the head occupied the occiput principally; there was also pain in the region of the stomach, and generally soreness over the abdomen.

"The intelligent surgeon who attended this patient prescribed a purgative enema, followed by a pill consisting of five grains of calomel and one of opium, and an active purgative mixture,—and directed the feet to be fomented. The following morning every symptom had disappeared. The patient reported that the action of the purgative and the fomentation had promptly relieved her. She added an expression of surprise at having obtained such immediate relief, having on a former occasion experienced a similar attack and been bled to no purpose, as she had continued to suffer for many days." 202.

"The following case, which I extract from the interesting paper of Dr. John Clarke,* to which I have already referred, p. 163, is still more extraordinary.

"Mrs. T. came to London expressly for the purpose of lying-in. She was a healthy woman, the mother of several children, and had always passed through the period of her confinement without any unfavourable complaints.

"For the purpose of her confinement, she resided in a furnished house, where two streets crossed each other, and there was a mews at the back of the house. Here she lived for three weeks before her labor. She had a very natural delivery, and slept well afterwards. By the end of 10 or 12 days, she was well, and free from any disorder.

"In the course of one night she was seized with a severe pain in her head, attended with considerable impatience of light. These symptoms became more violent towards the morning, so as to excite great alarm in her husband, who immediately came to the writer. On learning that she had been perfectly well on the preceding day, he asked if she could attribute the pain to any cause. She replied that she knew of none, unless that, from the situation of the house, she heard every carriage which passed the streets, and every carriage which entered or left the mews. But as she had been in the house five weeks without having found any inconvenience from it before, this did not appear a probable way of accounting for it.†

"Every inquiry respecting her diet was made, and it appeared that she had eaten nothing but the most simple food. The writer, upon receiving this information, observed, that he was glad she had eaten no oysters. To this observation she replied, that she had, two days preceding the attack, eaten oyster-sauce to some boiled chicken, but that she could not comprehend how that should produce such a violent pain in the head: and she appeared anxious to know, whence the satisfactory conclusion was drawn from her having before said, that she had eaten nothing but simple food, having forgotten the oysters, of which she had swallowed about a dozen. An answer to her inquiry on this head was avoided."

"I would earnestly recommend the whole of this essay to the reader's attentive perusal. It is quite obvious that the symptoms which are detailed in it, as resulting from partaking of oysters in the puerperal state, may originate from any other equivalent source of irritation of the stomach." 204.

We suspect that more puerperal cases are induced by improper articles of food given or taken, than is generally supposed. We are induced to press this fact upon the attention of our readers from its exceeding importance, especially in regard to the cure. In every case of puerperal disease, the strictest and minutest inquiries should be made into the diet; and in every case, in which some improper or even doubtful article of food has been taken, a dose of *ipercacuanha* should be administered instantaneously. In half a dozen hours after such an indiscretion we have known patients affected with sickness, fainting, pain, head-ach, delirium, and a pulse of 140 or 150, and life placed in the utmost jeopardy!

We now select a case or two dependent upon the state of the bowels. In such cases the abdomen is most apt to be affected; but the head may suffer from pain, throbbing, and intolerance of light and noise, and even delirium; hence the common circumstances of tied up knockers, darkened rooms, &c., and, perhaps, even the common phrase of "in the straw." The attack of

* "Transactions of the College of Physicians, vol. v. pp. 125, 126."

† "It is plain that this circumstance was the effect, and not a cause, of the disease, and consisted in intolerance of sound so common in these cases." M. H.

puerperal affection dependent on intestinal irritation, is frequently induced by the action of a purge. This is a well-known and important fact. And it would suggest the propriety of washing out the large intestine by a copious injection of some bland mucilaginous fluid after delivery, in preference to the too customary plan of administering a purge.

"Mrs. ———, a healthy young person, was confined on January the 20th, 1820. On the preceding day she had experienced inefficient wearying pain. On the morning of her confinement the pains were strong, but the os uteri was found to be rigid; she was therefore bled to eighteen ounces, and her labour was soon afterwards completed.

"Mrs. ———, continued well until the succeeding morning, when she was affected with severe shivering, which was repeated three times, occupying about the space of three hours. The rigors were succeeded by great heat of the skin, and by great sickness, retching, and vomiting. An enema and purgative medicine were administered; much hardened feces were expelled, together with a fluid having the appearance of yolk of egg; and much relief was experienced. In the evening, and during the night, however, there was great heat of surface; there were much restlessness and constant changes of posture, and throwing the arms about and out of bed; the sleep was disturbed by startings and slight delirium; there were head-ach, confused vision, and much humming noise; and there was great faintishness on any attempt to assume the erect posture. She was directed to take the effervescing mixture.

"On the morning of the 22d the sickness returned; the purgative medicine had acted; there was considerable uterine discharge. A draught was given with thirty-five drops of the tinctura opii.

"I saw the patient about one o'clock: the pulse was then 144; there were head-ach, intolerance of light, dimness and imperfection of the vision, and great humming noise in the ears; there was some beating of the carotids visible externally; there were restlessness, changes of posture, throwing the arms out of bed, faintishness if raised to the erect position, a feeling of want of air, and relief on smelling vinegar. A draught with thirty-five drops of the tinctura opii and a dram of the spiritus ammoniæ aromaticus, was ordered to be taken immediately, and to be repeated in three hours; a lotion, consisting of a dram of sulphas zinci and a pint of water, was directed to be applied to the pubes, and within the vagina. And aperient draught was prescribed, but not given.

"In the evening the pulse was 130; there had been comfortable, refreshing, and undisturbed sleep; all the symptoms were abated; the bowels had been purged; the uterine discharge was diminished. A draught with ten drops of the tinctura opii and half a dram of the spiritus ammoniæ aromaticus, was prescribed to be taken every five hours; the effervescing medicine was continued; the face and hands are directed to be washed with a lotion when hotter than natural.

"Early on the morning of the 23d, there was an attack of troublesome coughing. At ten o'clock the symptoms were nearly as on the preceding evening; at night they were still further mitigated,—the pulse being 120, the bowels open, the uterine discharge more scanty.

"On the succeeding day, Mrs. ———, complained most of general stiffness and aching of the limbs, and the pulse was 125. The opening medicine was given, the opiate draughts were again prescribed, and the lotion was omitted. In the evening Mrs. ——— was relieved, and the pulse was 120.

"On the next day there was little complaint; the pulse was 108, the bowels open, and the lacteal discharge natural. All these symptoms at length subsided; but soon after this time, the vein which had been pierced in the arm began to inflame, and this new, but terrible disease proceeded, in spite of every remedy, and destroyed the patient." 208.

We now proceed shortly to detail the characters of that puerperal case

which depends principally upon the effects of loss of blood. These seldom, rather never, exist alone. They are generally conjoined with some of the effects of intestinal irritation; and they modify almost every case of that disease; but they rarely show themselves in conjunction with inflammation.

There is seldom rigor or excessive heat; but there may be transient chills, transient flushes. The countenance and especially the prolabia are pallid. The head, the carotids, and the heart throb; there is intolerance of sound; (intolerance of light belongs rather to intestinal irritation;) there is a characteristic tendency to syncope on assuming the erect posture, and on taking blood. Sometimes the case resembles an affection of the head, sometimes disease of the heart.

Into the investigation and description of the effects of loss of blood Dr. Hall has entered fully, too fully for us to follow him here; we are compelled, therefore, to refer to his work for complete information on this very important and interesting subject. We extract the following case, which, in the commencement, conjoined some effects of intestinal irritation, but afterwards consisted more purely of those of loss of blood.

Case. "Mrs. ——— aged 35, was confined on Friday the 11th of June. For several weeks previously to delivery, she had been subject to pain of the head, and of the left side, which were relieved by an attention to the state of the bowels.

"After the expulsion of the placenta, there was considerable hæmorrhagy, which induced great exhaustion; two doses of forty drops of tinctura opii were given within two hours, with the effect of producing sleep. The flow of milk commenced on the same day, and was very copious.

"About three hours after delivery, Mrs. ——— was seized with a violent pain of the crown of the head, confined to a space which could be covered by the hand; the pulse was 80 only; there was much thirst; the tongue was little affected; the skin was natural. This pain was relieved by the cold lotion, and opening medicines, and Mrs. ——— continued better during ten days.

"On the night of Monday, June the 21st, Mrs. ——— was taken about 12 o'clock, with severe shivering, which was succeeded by intense heat and dryness of the skin, great pain of the head, and intolerance of light and of noise. At ten o'clock on the succeeding morning, these symptoms still continued; the pulse was from 120 to 130, and sharp; the pain of the head was throbbing, and the head felt as if bound tight; the tongue was parched. Ten ounces of blood were taken from the arm, which produced temporary faintness, but some relief; the cold lotion was applied to the temples. At seven o'clock in the evening, the pain of the head was as severe as ever, especially if the lotion were not constantly applied; the pulse was 120; the tongue not so dry; the blood already drawn was buffy. Twelve ounces of blood were taken from the arm. This was followed by great faintness, and gasping breathing—to such a degree indeed, as to lead to the apprehension of dissolution even. On recovery, the pain, and intolerance of light and sound remained as before; the pulse rose to 130. Leeches were applied to the temples and the cold lotion over the head; two grains of calomel were ordered to be taken every two hours; and an opening mixture and an enema were prescribed.

"At four o'clock of the morning of Wednesday the 23d, the symptoms continued with little change; the pulse was 120; there was much gaging. Six leeches were applied to the temples, a blister to the nape of the neck, and the medicines were continued.

"On Thursday morning, the 24th, the pulse was 100, and she appeared better, but complained of a degree of beating of the heart. At four in the afternoon the pulse was 120, the breathing was deep, sighing, and rare, and there was a sense of fluttering

at the heart, the affection of the head still continuing. Two grains of opium and five of calomel were ordered to be taken immediately.

"At two o'clock on Friday morning, Mrs. ——— was distressed with a feeling of hurry, of impending dissolution, and of being 'overcome' by sleep; the pulse was 120; and there were sighing and interrupted breathing. At eleven o'clock she was more comfortable,—the pulse was 100; there was less pain of the head, and of intolerance of light and sound, less sighing, and less faintness; she had been able to sleep for ten or fifteen minutes without feeling overcome; there was some fluttering.

"From this day the amendment was progressive, though slow. 234.

We must next present our readers with the practice to be pursued on each of these cases. This leads first to draw their attention to a plan of blood-letting, proposed by Dr. Hall, with the view of determining the *quantity* of blood which may and should, be taken; and, in the second place, of determining from this the *diagnosis* of the disease. The plan is this. The patient is to be placed upright, and bled to incipient syncope. If there be inflammation, much blood will flow before syncope occurs, and much blood ought to be taken, in intestinal irritation, on the contrary, and, *a fortiori*, in exhaustion, the abstraction of a very little blood will induce syncope. Thus the taking too much, and too little, blood is guarded against;—and it is difficult to say which is the more fatal error of the two. No doubt this plan will admit of modifications—of exceptions. "*Nulla perpetua præcepta medicina recipit.*" We shall here introduce an extract or two from Dr. Hall's *methodus medendi*.

"I now proceed to state the treatment of puerperal inflammation.

"And I would observe, in the first place, that nothing can be trusted to, to save the patient, but the most ample blood-letting, and, in the second place, that nothing should preclude the use of this remedy but the actual existence of the state of sinking. In regard to the measure, and the repetition of the blood-letting, many points must be taken into consideration. The earlier, and the more fully this remedy is employed, the more efficacious and the safer it is, and the safer is its full repetition.

"There is one point which I would particularly impress upon my reader. It is, that the blood-letting should, in this disease, ever be performed, the patient being in the erect position; and it may then, in general, be safely carried to deliquium. I do not recommend this mode of proceeding with the view of producing deliquium merely; but also, that this deliquium may serve as a guide, in judging of the extent to which we may carry the depletion. If the patient be sitting upright, and faint by the loss of blood, we have a security and remedy against any danger from this event, in laying the patient low. But if deliquium be induced by bleeding the patient in the recumbent position, I cannot say that I think it will always be without danger. I think the plan which I have proposed at once far more safe, as well as far more efficacious in subduing this disease. If it were requisite, the patient's head might be laid even lower than the rest of her body.

"The same rule may apply for the repetition of the blood-letting. If the fullest effect is desired which the patient can safely bear, let her be bled to syncope in the erect posture. She will faint from losing a larger, or a smaller, quantity of blood, precisely in the inverse proportion of the previous exhaustion; the state of syncope will not only warn us to desist from drawing more blood, but will arrest the flow of blood itself, just at the point when the patient can bear to lose no more.

"This is a most important criterion for the employment of a most powerful remedy. I do not by any means wish it to be understood, that it is always safe to bleed to deliquium in the erect posture; but that, when it is determined to bleed, it is important to have

the boundary, which it would be unsafe to pass, at least clearly defined. Sometimes the patient will faint on being merely placed upright; is it then, ever, and in what particular cases, safe to bleed?

"The next question is in regard to topical blood letting. And I think there is one important rule for the adoption of this remedy. It may, of course, be enjoined to be done immediately after general blood-letting. But it is particularly useful in those cases, in which the system is obviously subdued by the general blood-letting, and yet the inflamed part remains tender under pressure. In such cases, leeches, or still better, cupping, if it be properly and tenderly performed, will prove a most useful remedy.

"It is quite unnecessary to state the utility, or rather the necessity, for the administration of purgative medicines in this disease. There is good reason to suppose that some cases have been subdued even by this remedy alone. And the efficacy of purging in conjunction with blood-letting is quite undoubted. A constant catharsis should be kept up, indeed, until the disease is completely subdued." 190.

INTESTINAL IRRITATION.

The treatment of this puzzling state is as follows:—

"In the treatment of the effects of intestinal irritation, I would by no means exclude the use of the lancet. Blood-letting may be useful in such a case, for the same reason that it is useful in simple fever. But I would repeat, that this remedy is only subsidiary to the full and free evacuation of the bowels, and, if necessary, of the stomach. If it were trusted to alone, or with only a moderate attention to the state of the alimentary canal, or if it were used in the manner which is required to be efficient in puerperal inflammation, I am persuaded that the patient would die of exhaustion, before the symptoms would yield.

"The remedies of intestinal irritation and its effects, I would enumerate and arrange in the following order: first, the full evacuation of the intestinal canal; secondly, blood-letting; thirdly, some kindly anodyne; fourthly, leeches, cupping, a lotion, a liniment, or a blister, according to the circumstances of the case, for the topical affection; fifthly, the mildest, nutritious food; sixthly, the most absolute quiet, and the most perfect security from light, noise, disturbance, and every other source of excitation; seventhly, every soothing plan; eighthly, great coolness, and free ventilation of the sick-room; and, lastly, a constant watching over the patient during sleep, to avoid the injurious effects of turbulent dreams on one hand, and of too long sleep and fasting on the other. Upon each of these points I proceed to make such observations as I have learnt, from practice, to be of importance.

"In regard to the state of the alimentary canal, it is quite obvious that an emetic is the proper remedy when the symptoms can be attributed to any indigestible substance taken. And I would recommend this remedy, even although it might appear, from the lapse of time, unlikely that the injurious substance should still remain in the stomach.

"When the case originates from intestinal irritation, I would earnestly recommend that the first remedy should be an enema, consisting of three or four pints of warm water, very slowly and gently forced into the bowels. This should be followed by an active purge. And this should, in due time, be followed by a repetition of the injection. I need scarcely observe, that the evacuations should be immediately carefully examined, and the effects upon the symptoms of the disease be watched.

"To abate the general heat and excitement of the system, to relieve the head or the abdomen, and to ensure perfect safety, the patient should, in cases in which the strength is not particularly impaired, be raised into the erect posture, and be blooded until faintness be induced. This effect also should be carefully watched and observed. If it

occur from the loss of a small quantity of blood, it confirms the diagnosis; if it do not occur until much blood have flowed, it should suggest the suspicion of more than mere intestinal irritation,—of one of those mixed cases which so frequently occur, and of which I propose to treat in a subsequent chapter.

“I do not imagine that this decided use of the lancet can ever be attended with danger, if there have been no previous loss of blood, or other cause of exhaustion. But it could not be repeated with impunity. It would lead to exhaustion with the symptoms of reaction, to the state of sinking, or even to sudden dissolution. And if the case be really one of intestinal irritation, and the other remedies have been duly applied, such repetition of blood-letting will not be required.

“It is an observation of great importance, that, in inflammation, repeated blood-letting is required, and is borne with safety; in intestinal irritation, on the contrary, the repetition of blood-letting is neither necessary nor safe.

“This free evacuation of the bowels, and detraction of blood, are very apt to be followed by symptoms of hurry and alarm in the system. These effects are frequently prevented by the timely administration of an efficient and kindly anodyne; and I believe no anodyne is possessed of these qualities in a higher degree than the liquor opii sedativus of Battley. Of this excellent medicine a full dose may be given, and, if necessary, repeated in five or six hours.” 221.

We now come to the 7th chapter, on “*MIXED CASES.*” These, according to Dr. Hall, are those which are most commonly met with in practice, and he proceeds to illustrate the various combinations of inflammation with intestinal irritation—or of either or both, with the effects of loss of blood by a critique on the work of the late Mr. Hey, of Leeds, who, as well indeed as almost every other writer on this subject, appears to Dr. Hall to have combined in one description, all the three different states of which he (Dr. H.) has treated. We are unable to follow Dr. Hall through this critique; but we cannot help fearing that there is but too much justice in his strictures. We have, ourselves, seen so much mischief done by mistaking irritation for inflammation, that we cannot doubt of the great extent of that mischief in former times, when bleeding was so unsparingly as well as indiscriminately employed.

We shall extract the following passage on puerperal mania.

“There is a mixed case which shows itself under a still different form from any which have hitherto been described:—it is *puerperal mania*. I believe this disease to result, in general, from all the circumstances following parturition combined; but chiefly from the united influences of intestinal irritation and loss of blood. I purpose to pursue this subject hereafter. In the mean time, however, I would observe, that I am persuaded that real puerperal phrenitis is comparatively a rare disease,—that puerperal mania is seldom of an inflammatory character, and that it is, especially, to be treated by those measures which are suited to the mixed case of intestinal irritation and exhaustion. This opinion is confirmed by the fact of mania occurring from undue lactation, as well as from the circumstances of the puerperal state. I am inclined to attribute much more to the combined influence of irritation and exhaustion, than to the mere ‘state of the sexual system which occurs after delivery,’ which has been assigned as the chief cause of this morbid affection by Dr. Gooch, in a most interesting paper upon this subject, in the sixth volume of the *Transactions of the College of Physicians*, p. 280,—although I would by no means exclude the influence of this principle altogether. There is ample evidence, in Dr. Gooch’s cases, of the influence of intestinal disorder; and the events of labour, and the circumstances of lactation, ever add to this state of exhaustion. This view is the more important, be-

cause it directly suggests the proper mode of treatment, which consists in restoring the system to a state of due health by every means in our power, whilst we adopt every measure which can soothe and allay the morbid irritability of the nervous system.

"I am confirmed in this view of the nature of puerperal mania, not only by a careful investigation of its causes, and the good effects of the remedies which I have mentioned, but by having met with the symptoms of intestinal irritation described in chapter V., as a prelude to those of mania." 253.

These remarks are illustrated by a very interesting case, some few particulars of which we shall lay before our readers.

A lady was confined after a very tedious and painful labour, and continued to do well for 50 hours, when she became affected with severe pain and beating in her head, attended with intolerance of light and sound. To these symptoms succeeded delirium, with a pulse of 130 to 140, starting and alarms, frightful visions, &c. She had no rest or sleep for five days. Leeches, purgatives, and anodyne draughts did no good, and the symptoms daily increased in violence. A drachm of the tinctura opii with spir. ammoniæ aromat. was given and repeated in the night, snow being applied to the head. This induced a profound and quiet sleep, and the patient awoke free from delirium. The same medicine was exhibited the succeeding night, and from that time all the bad symptoms subsided.

The remainder of the chapter, being critical of Mr. Hey's work, we shall pass over.

In the 8th chapter, Dr. Hall details some cases illustrating the fatal effects of blood-letting in puerperal affections.

"These cases illustrate several points of great practical importance: and first, the danger of the repetition of the blood-letting, in cases which have been relieved by previous remedies, as a preventive merely; in such cases, all inflammation, if it existed, having subsided, a chief source of safety in the use of the lancet, as well as of the necessity for it, is removed, and the patient will be very apt to fall a prey to the further loss of blood. This is exemplified in the first and second cases about to be adduced. In the second place, I consider the particular danger of an unguarded use of the lancet, in cases not inflammatory, to be exemplified in the third case, which was clearly one of intestinal irritation, and not of inflammation. The last case is a sad instance of an inconsiderate blood-letting, and it is to be hoped that few such examples have occurred, although, I confess, that in the prevailing mania for blood-letting, even such cases should not greatly surprise us." 287.

We shall endeavour to make room for one of the cases here detailed.

"Mrs. —, aged 33, weakly, was confined of her sixth child, after an easy labour, without flooding, at midnight on the 20th July, 1818. During the ensuing day all was well. The lochia were natural; there was no alvine evacuation, but the bowels had been open during pregnancy, and twice evacuated during labour.

"On the morning of the 22d, Mrs. — took half an ounce of the oleum ricini; and at four in the afternoon this medicine was repeated, the first dose having produced no effect; this, however, induced violent purging, occasioned great fatigue, and caused the patient to complain much. At ten o'clock in the evening, Mrs. — was seized with rigor, which was violent and continued more than an hour; this was followed by great heat of skin, with wakefulness, restlessness, anxiety, sighing, and moaning.

"At ten on the succeeding morning there were great heat of skin, and pain at the bottom of the back. Four tea-cups-full of blood were taken from the arm. The symptoms still con-

tinued, and at seven in the evening, three tea-cups-full of blood, and at eleven three more, were taken from the arm, and twenty leeches were applied to the region of the uterus for the increased pain. The pain still continued to increase, with restlessness, sighing, faintishness, constant necessity for the smelling bottle, and apprehension of impending dissolution.

"Afterwards the symptoms being unabated, a physician was consulted. About three o'clock, three tea-cups-full of blood were again taken from the arm, and leeches again ordered to be applied; an enema was given, which evacuated a quantity of feces quite unexpected. In a short time Mrs. — became cold, and the surface clammy, with fainting, gasping, breathing, &c. and all was done to restore warmth. After an interval of three hours the pain was still great. Some opening medicine was prescribed. But the state of sinking continued,—the smelling bottle, the fan and fresh air were urgently called for. All the symptoms, except the pain, were aggravated, there were gasping, a slight convulsive struggle, another, and the patient expired.

In this case it will be observed, that the pain remained unabated, even after the last fatal blood-letting. I have reason to regard this, as denoting not an inflammatory origin of the pain, but the presence of morbid alvine contents." 294.

The ninth and tenth chapters on epidemic puerperal fever, and on the effects of previous disorder on the general health, need not detain us, as they occupy only a few pages of the original work—reference being made to Dr. Hall's paper in the 13th volume of the *Medico-Chirurgical Transactions*, of which we have already given an account in this Journal.

With these extracts and observations we must take leave of Dr. Hall for the present, and proceed to the work of Dr. Gooch.

The first remark made by this author is one in which we fear we cannot concur, viz. that the designation of peritoneal fever is to be preferred to that of puerperal fever or puerperal peritonitis. Dr. Gooch prefers this term, because "it would express the fact, that an affection of the peritoneum is an essential accompaniment of the disease, without defining what the affection is, because it is not uniform." 2. But if there be sometimes traces of peritonitis on examination, and sometimes not, to which we suppose this last remark refers, should not the two cases be distinguished by a distinct nomenclature altogether?

Leaving this point, we proceed to state that this disease^{*} is remarked to be more prevalent at one period than at another—that when most prevalent, it is also most dangerous—that when thus prevalent, "it is not uncommon for the greater number of cases to occur in the practice of one man, whilst the other practitioners of the neighbourhood, who are not more skillful or more busy, meet with few or none." 4.

Dr. Gooch observes—

"The most fatal disease to which lying-in women are subject is known under the names of Puerperal or Child-bed Fever, Puerperal Peritonitis. Its essential symptoms are pain and tenderness over the abdomen, with a rapid pulse.* It begins a few days after delivery

* "Dr. Lowder adopted a very good method to form an accurate definition of this disease. He read all the different authors of character who had written on the subject, and noted down all those pathognomonic symptoms which they agreed were necessary to constitute the disease, and, on comparing these with his own experience, he found them to be very few—fever, intense pain of the head, and intense pain of the abdomen."—(Lowder, MS. Lectures.)

with pain of the abdomen, shivering succeeded by heat and a quick pulse. As the disease advances, the milk becomes suppressed, the belly tumid, and the breathing short;—when it terminates fatally, it does so commonly about the fifth day, but often in less than half that time. On opening the abdomen, the morbid appearances are not uniform, but the most common and remarkable are a copious effusion of lymph and serum on the surface and in the cavity of the peritoneum. Thus it is a fever essentially complicated, with an affection of the peritoneum.” 2.

“From the little I have already said about the symptoms of this disease, and the morbid appearances discovered after death, it is clear that it essentially consists in fever, with an inflamed state of the peritoneum; but fever may vary, not only in degree, but in kind, or (as it is commonly called) type; and inflammation may vary, not only in degree, but also in kind or type. Hence, in investigating the nature of this disease, one of the first questions is, whether it is strictly uniform, differing only in degree in different cases, and requiring only different degrees of the same treatment; or whether it differs so much in kind or type, that the mode of treatment which is necessary in some cases, is destructive in others. The latter is the conclusion to which we must inevitably come, at first sight, in tracing the history of this disease in the works of those who have written about it. This I propose to do through the last half century, not for the useless purpose of raking up old and obsolete opinions, but because it is unsafe to draw inferences, except from a wider survey of facts than the experience of a single individual, or of a single epidemic, affords.” 6.

Dr. Gooch proceeds to review the opinions of Dr. Butter, Dr. John Clarke, Dr. William Hunter, Richter, Dr. Lowder, Dr. Denman, and Dr. Gordon, and concludes by the following remark:—

“From the foregoing account of the experience and opinions of different physicians, who had opportunities of observing puerperal fever, what inferences are we to draw? Supposing that each observed accurately the disease which he witnessed, and that no mistake was made in the formation of his opinion, the inevitable conclusion is this:—that puerperal fever, by which I always mean that fever which is accompanied by an inflammatory state of the peritoneum, is not one uniform disease, but may occur under different forms,—that sometimes it is so mild as to be curable by the gentlest aperients, and at other times it is very obstinate and fatal. That in this latter form it sometimes consists of acute inflammation of the peritoneum with inflammatory fever which bears, and is curable only by early and active depletion, sometimes of inflammation and fever of a low type, in which depletion is useless, and even pernicious.” 16.

Dr. Gooch next details the experience of M. Doucet of Paris, and Dr. Böer of Vienna. Lastly, our author notices the more recent works of Dr. Armstrong and Mr. Hey, and concludes with the following remarks:—

“The Treatises of Dr. Armstrong and Mr. Hey produced a strong impression on the minds of medical men in this country. It convinced them that the puerperal fever which was then, and had been for several years, infesting various parts of the island, was an acute inflammation of the peritoneum, and that bleeding and purging, employed very early and very actively, was the only mode of treatment which was capable of arresting it: but the impression did not stop here; it produced a general conviction, that the present was a fair representative of all former and all future puerperal fevers; that bleeding and purging were its essential remedies in all places and seasons; that they had failed only because they had been used too late and too sparingly, and would succeed if they were used early and actively. In short, that a light had been thrown on the nature of puerperal fever, which explained the failures of physicians in times past, and would ensure

them success in times to come. Of these conclusions, as far as they relate to the disease which the writers had been witnessing and treating, I have no doubt; but as far as they relate to past and future epidemics, it may be useful to examine the reasoning which led to these conclusions, and how far they have been corroborated by subsequent experience.

"I have no doubt, from the symptoms and progress of the disease which Mr. Hey witnessed at Leeds, and Dr. Armstrong at Sunderland, that it was a genuine puerperal fever; that is, fever accompanied by an affection of the peritoneum, although the proof by dissection was wanting in both.* I applaud the zeal and ability with which they investigated its nature, and conducted its treatment; but a question of great difficulty and importance still remains, namely, whether the puerperal fever, accompanied by an affection of the peritoneum, and often epidemic, does not assume different types in different seasons, being sometimes acutely inflammatory, and bearing and requiring early and active depletion; at others, characterized by debility, or what has been called action without power, in which depletion, however early and actively employed, is useless and pernicious." 33.

Dr. G. observes, that there are only two sources of materials for solving this question—a comparison of past epidemics with those which fall under our own observation—and an application to future epidemics of the treatment which was found so successful in those we have witnessed. The *latter* only affords conclusive proof. When Dr. Armstrong and Mr. Hey published, they were in possession only of the *former* source of information—"and they appear to me to have laid far too much stress upon it, and permitted it to lead them to far too positive conclusions." Dr. Armstrong had remarked that "there is perhaps no disease more uniform than puerperal fever in the symptoms and morbid derangements which it induces." Dr. A. also quotes Dr. Hulme as to the "immutability of the puerperal fever." On these passages Dr. Gooch makes the following comment:—

"In the leading circumstances of the disease, there is certainly great uniformity; it almost always commences a few days after delivery, is marked by pain and tenderness of the belly, and a rapid pulse; if not cured, terminates fatally within a week, and, after death, commonly leaves the depositions and effusions of inflammation. Thus far it is very uniform, but no further. To say nothing of its causes, there are at least three things requisite to form the history of a disease:—1st. Its symptoms. 2d. The effects produced by remedies. 3d. The morbid appearances discovered after death. In the history of puerperal fever, there is, even in the first and third of these particulars, considerable difference: this is apparent even in the experience of Dr. Armstrong himself, who describes the local inflammatory symptoms as being sometimes very distinct, sometimes very indistinct, and sometimes absent altogether, the patients not only complaining of no pain in the abdomen, but bearing pressure without the slightest shrinking. Compare too, the symptoms of the disease as described by Dr. Gordon, of Aberdeen, and those described by Dr. Clarke, of London. In the appearances discovered after death, there is also this great difference in different epidemics, that sometimes there are the effusions of inflammation, with extensive

* "It is to be regretted that no examination could be obtained, as morbid dissection might perhaps have thrown some additional light on the nature of the disease."—*Armstrong on Puerperal Fever*, p. 10. Mr. Hey also makes a similar complaint."

redness of the peritoneum, at other times the peritoneum is quite pale; in the sequel it will appear that there is a still greater difference in the appearances after death. But if from the symptoms and morbid appearances we pass to the second particular in the history of the disease, namely the effects of remedies (which form not only an essential, but the most important part of this history, for the two others are of no value but as they throw light on this,) there is perhaps no disease of which the histories have been so opposite. Richter could almost always cure it. Dr. William Hunter and Dr. Clarke could scarcely ever cure it. In Dr. Lowder's time it was observed that every woman who was blooded, died. In Dr. Armstrong's time it was observed that every woman who was not blooded died. 36.

Throughout the whole chapter on the pathology of the disease, Dr. Armstrong appears to our author to write as if he thought that the symptoms during life and the appearances after death, were infallible guides to the nature and treatment of the disease.

"Thus, he remarks, that if a practitioner were to see a woman soon after delivery suffering pain in the abdomen, a quick pulse, and the other signs of fever, and after death were to find no other morbid appearance than extensive traces of inflammation in the abdomen, he would at once conclude that the disease was active inflammation, and would in future treat it as such; and, alluding to those writers who have considered the low epidemic fever of child-bed as a different disease from peritoneal inflammation, he says, 'it becomes a matter of great practical consequence whether symptoms and dissections justify such a distinction.' It appears to me that symptoms and dissections cannot settle the question, and that Dr. Armstrong lays more stress on the argument than it will bear. Supposing many cases of a disease, which bore in general a striking resemblance to one another in the symptoms and the appearance on dissection; this would naturally suggest as a strong probability that they would all be affected in the same way by the same remedies: but suppose that on applying these remedies to all these cases, with the same activity, at the same stage of the disease, and as far as can be made out, under the same circumstances, they produced different effects on different cases, some being relieved and recovering, others being made worse and dying; this would be more conclusive evidence of a difference between these cases, than the symptoms and morbid appearances were of their identity. The effects of remedies on a disease, if accurately observed, form the most important part of its history; they are like chemical tests, frequently detecting important differences in objects which previously appeared exactly similar. How many diseases are there in which the symptoms are inadequate guides; in cases apparently syphilitic and apparently similar, some as soon as mercury affects the mouth begin to mend, and rapidly recover; in others, the ulcers begin to spread; and so imperfect are the appearances as guides, that I have known the first surgeons in the profession giving opposite opinions about the same case, and a nose lost from taking the opinion of the majority. The local pains and constitutional disturbance which occur in feeble and bloodless persons, and which are aggravated by bleeding and other evacuations, strikingly resemble the local pains and constitutional disturbance which occur in vigorous and plethoric persons, and which the lancet and other evacuations relieve and ultimately cure; yet how many years is it before the young practitioner learns that there are cases apparently so similar yet really so different, and how to distinguish them,—and how many practitioners are there who never learn it at all! Symptoms and dissections can never do more than suggest probabilities about the nature of a disease and the effects of a remedy on it. A trial of the remedies themselves is the only conclusive proof. Sydenham was so aware of this, that he says, 'Epidemic diseases may seem alike to the unwary, because in some sort they do agree to outward appearance;' adding this confession, 'when a new species of fever arose I was doubtful how to proceed, and notwithstanding the utmost caution could scarce ever preserve one or two of the first patients from danger,' so far from infallible were symptoms as guides." 39.

Having thus discussed the history of former epidemics and the opinions of former writers, Dr. Gooch, proceeds to detail his own experience. The chief results of this were, from what obtained between the years 1812 and 1820, that puerperal fever was a fever attended by acute inflammation of the peritoneum; that the inflammatory stage was often very short, soon terminating in great and irremediable effusion into the peritoneum; that the disease was curable only in the inflammatory stage by active bleeding and purging, and that, although it was impossible to draw the line, and say when the inflammatory stage terminated in that of effusion, because it differed in length in different cases, yet that it was often incredibly short, and that the treatment had not a chance of success unless begun during the early hours of the disease. These results were precisely similar to those obtained by Dr. Armstrong and Mr. Hey. We do not therefore consider it necessary to detail them.

Dr. Gooch proceeds to the detail of several cases of puerperal disease which are of a very different character from those hitherto mentioned. They appear not to be inflammatory, not to bear or require blood-letting, but to yield to opiates, and to poultices to the abdomen, and, if fatal, not to leave traces of disease over the surface of the peritoneum. The first cases given are of a sporadic character. They are followed by others which appeared epidemically. We shall quote them in the order in which they presented themselves to the author, and in which he has transmitted them to us.

"For some years I supposed that the group of symptoms which indicate puerperal fever, always indicated the same disease, differing only in degree, so that if a woman a few days after delivery had diffused pain and tenderness over the abdomen, with a rapid pulse, she must necessarily have a peritoneal fever, for which the only remedy was early and active depletion. This, I know, was the common opinion of the profession, and may be the common opinion now, although some practitioners may have arrived at a different conclusion. The first case which led me to suspect that there were exceptions to this rule, and afforded me some light on this difficult and important subject, was the following:

"Case 1. The patient was a lady, twenty-six years of age, habitually thin, and long subject to occasional pains in the pelvis, which she called spasms of the womb, and which she relieved by opiates. She also frequently fell into a state of debility from which she was always restored by steel medicines, or chalybeate waters. This lady was delivered of her third child, after a short, easy, and natural labour. On the second morning after her delivery being perfectly easy, and complaining of nothing, she took a purgative, as is usual, of salts and senna. It operated plentifully several times; then the stools became frequent and watery with severe griping, and gradually the abdomen became painful and tender all over; the pain was without intermission, and the tenderness so great, that she could not bear the slightest pressure; nevertheless her skin was cool, and her pulse continued soft and not more than 80. This case occurred at a time when it was the prevailing notion in the profession, that puerperal fever was invariably acute inflammation of the peritoneum, for which early, full and repeated bleedings form the essential remedy, and I found it very difficult to prevent this treatment being adopted in this case. The medical attendant of the family visited her several times a day, insisting that the pain arose from inflammation of the peritoneum, and urging the necessity of bleeding. I succeeded, however in preventing this measure; the abdomen was kept constantly covered by a bag of scalded bran; she took ten grains of compound powder of Ipecacuanha, every four hours; the pain soon diminished, and at length subsided; the tenderness remained longer, but ceased on the sec-

and day, leaving her quite free from any symptom of disease. 'A few days afterwards, the bowels being confined, and mild aperients not acting, she took another dose of salts and senna, which operated as the former, producing another attack of pain and tenderness of the abdomen, which was speedily relieved by fomentations and opium.' 65.

In this case, Dr. G. observes, there was not much danger of going wrong—the slow pulse was a sufficient guide.

"Without stirring the question, whether the irritation excited by the purgative had excited the symptoms which I have described, the case taught me that a lying-in woman might have a diffused and permanent pain over the abdomen with tenderness, which neither I nor the family apothecary could distinguish from the pain and tenderness of peritoneal inflammation, which nevertheless did not depend on inflammation; at least it was unaccompanied by quickness of pulse, and it was cured without depletion, by fomentations and opium. All this was new to me, and interested me much; but I had not been brooding over it long, before I met with the following still more remarkable case." 66.

Case 2. This was the wife of a surgeon in the country, to whom our author was called. She had been delivered a few days, and was represented to be in great danger from peritoneal inflammation. The following particulars were collected on Dr. G.'s arrival.

"In her ordinary health she was pale, and subject to fits, either hysterical or epileptic; she had been confined four days, and her present symptoms had lasted rather more than one; they were permanent pain all over the abdomen, tenderness, and soreness, so that turning in bed was distressing to her; she had had no rigors nor chilliness; her pulse was 116, perfectly soft, and rather languid. One of the medical gentlemen, who had seen her at four o'clock that morning, had taken from the arm two cups of blood; but although it had flowed in a full stream, the surface of the crassamentum was flat and red, and the bleeding had afforded her no relief. I ordered the abdomen to be covered by a linen bag stuffed with hot bread and water poultice, and I gave her twenty minims of laudanum; the poultice was to be renewed often enough to keep up heat; she was to continue the laudanum in doses of ten minims every four hours, and take nothing for diet but thin hot gruel. I breakfasted in the house; before leaving it, I went up to her chamber, and found that her abdomen was easier, her skia moist, and her pulse had fallen to 100. The next day, I received a note from her husband, to tell me that the pain and tenderness of the abdomen were quite gone, and that her pulse had fallen to 90. She now left off her opiates, but continued her fomentations, took a mild aperient, and recovered without any further interruption." 67.

In this last case there was more danger of going wrong than in the former. The pulse was quick—and there was a group of symptoms that are generally supposed to indicate peritoneal inflammation, when they attack a woman a few days after parturition. But our author was guided by the habitual constitution of the patient—by the softness of the pulse—the uninfamed appearance of the blood—and the non-relief from venesection. This case taught Dr. Gooch, that a lying-in woman might have diffused and permanent pain with tenderness of the abdomen, and rapid pulse, and all these from a state which does not require bleeding—is not relieved by that measure—but which is speedily relieved by fomentations and opiates.

Case 3. Dr. G. went to a lady in the country who had had violent hæ-

morrhage after delivery. She rallied from this, and Dr. G. returned to town. On the fourth day the doctor was again summoned.

"When I arrived I found the same medical men in the house, who told me that she had that morning been suddenly attacked with a severe rigor, and violent pain in the abdomen; that when the rigor went off, the skin became hot, and the pulse rapid; that the belly was painful and very tender. They lost no time, but opened a vein in the arm, and took away, they told me, thirty ounces of blood, on which she became very faint, and still continued so. When I went up to her chamber, I found her with sharp features, cold and clammy on her forehead and cheeks, with a pulse scarcely to be felt; the blood was not buffed. She died before I left the house." 70.

The body was not opened, but our author shrewdly conjectures that if, instead of blood-letting, opium and fomentations had been used, the result would have been very different.

Thus far his knowledge of these cases was confined to the symptoms during life, and to the influence of remedies. It was not long before he had an opportunity of seeing the post-mortem appearances.

Case 4. "A practitioner sent for me to see a patient, of whom he gave me the following account: She was habitually delicate, and subject to hysteria. After an easy labour of her eighth child, her after-pains had been long and severe, but her pulse was not quick. At six in the evening of the second day it was soft, and under 80. At four o'clock the next morning, the practitioner was called out of his bed, and found her complaining of great pain and tenderness over the whole abdomen. She had been vomiting; her pulse was quick, but small and weak, and her skin temperate. He immediately bled her, letting the blood flow till she fainted. He next gave her five grains of calomel, and soon afterwards a dose of salts and senna, but the latter was vomited. Two hours after the first bleeding, the pain not having been relieved, he bled her again to fainting. Twelve leeches were applied to the abdomen, and a pill was given her containing three grains of opium. Having received this account, I went into the chamber of the patient. Her face was ghastly; it was difficult to keep her out of a fainting fit; her skin was cold and clammy, and her pulse so quick, small, and fluttering, it could not be counted. I took off the leeches, and endeavoured to revive her by warmth and cordials, but she died in the evening, about six hours after my visit, and about thirty from the beginning of pain. The body was opened the next day. *The peritoneum was healthy, but pale: there were between one and two ounces of colourless serum in its cavity; the abdominal viscera were all healthy, but pale; the uterus was contracted in the ordinary degree.*" 71.

Our author feels no doubt that, had the belly been covered with a perpetual fomentation, and an opiate been given every four hours, instead of bleeding, the patient would have been quite well in a few hours. This, and other cases prove that what Dr. Gooch terms an "affection of the peritoneum" an "essential accompaniment of the disease," puerperal fever is not necessarily inflammation—unless there be a *pale* inflammation, without any other cognizable change from perfect integrity of structure!

Within a week after the occurrence of the above case, Dr. Gooch was sent for to the same locality, to see another of the same description; but the event was more fortunate, for he treated the case successfully with opium.

"These cases opened to me a new view of the subject; they taught me that a lying-in woman might have permanent pain and tenderness of the abdomen, with a rapid pulse, independent of acute inflammation of the peritoneum, or any other part; that

these symptoms may depend on a state which blood-letting does not relieve, and which, if this remedy is carried as far as it requires to be carried in peritonitis, may terminate fatally; and that the most effectual remedies are opiates and fomentations. Most of the patients who were the subjects of these attacks were women who in their ordinary health were delicate and sensitive; the attack sometimes seemed to originate in violent after-pains, gradually passing into permanent pain and tenderness, resembling inflammation; or in the painful operation of an active purgative; but it could sometimes be traced to no satisfactory cause; the patient had had a common labour, and had experienced no unusual cause of debility or irritation. The pulse in all these cases, although quick, was soft and feeble; this together with the previous constitution of the patient were my chief guides; when I could trace it to any irritating cause, such as a griping purge, and when blood had been already drawn without relief, and without being buffed, I saw my way still clearer. When I doubted, I applied leeches to the abdomen." 73.

The cases which Dr Gooch has related, and others similar to them, were speedily and completely relieved by the remedies which he has mentioned. There seemed to be nothing dangerous in this form of disease, provided the nature of it was not mistaken, and improper remedies not employed; yet it so strikingly resembled peritoneal inflammation, that it was invariably taken for it by the practitioners who witnessed it, "all of whom possessed at least that average quantity of sense and knowledge on which the public must extensively depend.

But as these cases were sporadic and with considerable intervals between them, they did not make a strong impression on our author's mind.

"In the winter of the year 1824, puerperal fever was prevalent and fatal in London and its neighbourhood. I had resigned my office at the Westminster Lying-in Hospital, and did not know, or do not remember, what was going on there; but I saw this disease repeatedly in consultation, and heard of it among my medical friends. Several instances occurred of its prevalence among the patients of particular practitioners, whilst others who were equally busy met with few or none. One instance of this kind was very remarkable: a general practitioner in large midwifery practice lost so many patients from puerperal fever, that he determined to deliver no more for some time, but that his partner should attend in his place. This plan was pursued for one month, during which not a case of disease occurred in their practice. The elder practitioner being then sufficiently recovered, returned to his practice, but the first patient he attended was attacked by the disease and died. A physician, who met him in consultation soon afterwards about a case of a different kind, and who knew nothing of his misfortune, asked him whether puerperal fever was at all prevalent in his neighbourhood, on which he burst into tears, and related the above circumstances.

"Among the cases which I saw this season in consultations, four occurred in one month in the practice of one medical man, and all of them terminated fatally.

Case 5. "The first case occurred in a lady, who had been delivered of her first child, after a long and severe labour, not from deformity of bones, but from rigidity of the soft parts and the bulk of the child; it occupied nearly three days. When visited the day after delivery she was found complaining of considerable pain in the abdomen, great tenderness, oppression at the præcordia, and difficult breathing. The pulse was rapid, but the most remarkable symptoms was immense distension of the abdomen, which separated the recti-muscles to the distance of two hands' breadth, and protruded between them the anterior wall of the abdomen to a considerable elevation. The projection was returned into the abdomen, and supported by straps of adhesive plaster. The feebleness of the pulse, the exhausted state of the patient, prevented

blood from being drawn, but a gentle purge was given. After this had operated, the pain being worse, twenty drops of laudanum were given, and repeated every two hours for several doses, but she sunk rapidly, and died on the third day after delivery. The body was opened the next day. The intestines were found enormously distended with air, but in the peritoneum there was neither redness, adhesion, nor effusion of any kind.

Case 6. "The second case occurred after a common labour of the fourth child. An opiate was ordered for the after-pains, and the patient was quite well when visited on the second day. On the evening of the third, she was found to have a diffused pain and tenderness of the belly with a pulse of 140, and not weak. The symptoms had not lasted six hours, the bowels had been emptied by a purgative, fourteen ounces of blood were taken away immediately, and two grains of calomel, with five of compound powder of ipecacuanha, were given every four hours. A few hours afterwards, the pain and tenderness continuing, ten ounces more of blood were taken away, by which she was much relieved. The next day she was not so well, the belly was distended and uneasy, the pulse was quick and weak, and the aspect of the patient very unpromising. A blister was applied, and the calomel was continued, but she sunk rapidly and died little more than two days from the commencement of symptoms. The body was opened the next day, but there was neither redness nor adhesion of the peritoneum, nor effusion of any kind into its cavity.

Case 7. "In the third case, the symptoms began thirty-six hours after delivery. The remedies employed were a bleeding of twelve ounces, an emetic, a purgative, and the opium and calomel, with a view of affecting the constitution as soon as possible with mercury, but the rapidity of the disease baffled all these remedies, and the patient died on the third day. The body was opened the following day, and no vestiges of inflammation were found in the peritoneum.

Case 8. "In the last case the patient was delivered after a labour attended by no unusual circumstances. She was seen in the evening of the second day, when she appeared quite well, complained of nothing, and had a slow pulse. She continued well till seven the next morning, when she was seized with pain and tenderness of the belly, but it was not swelled. I saw her at ten o'clock, that is, three hours from the commencement of the attack. Her pallid and weakly appearance, the feebleness of her pulse, the total absence of those symptoms in which I had formerly been so successful with the lancet, and its unfavourable effects in the cases in which I had seen it employed this season, made me unwilling to employ it. But the patient's husband was anxious that some leeches should be applied; because a few years before she had recovered from what appeared to him a similar illness, under the care of a very eminent physician, from the use of leeches; and the aspect of the case was so decidedly unpromising, that we were unwilling to deprive him of this consolation. Twelve, therefore, were applied to the abdomen, without loss of time, and twelve more subsequently.

"On the evening of the second day of her illness, when I went into her bed-chamber, I found her medical attendant at the bed-side with a decanter of wine, of which he was giving her a spoonful. She was free from pain, calm, and clear-headed, but she was pale, faint, breathless, cold, and had little pulse. Excepting only restlessness, she looked exactly like a woman dying from hæmorrhage. The cordials revived her for a few hours, but she died the next morning at four o'clock. The last lying-in patient whom her nurse had attended had died of a similar disease, equally rapid in its course." 79.

Dr. Gooch observes that, he does not state these cases to prove the inefficiency of full and early depletion, (for in two cases it was not used, and in the others not carried to any extent)—the treatment was chiefly conducted by “one of the best practitioners he had ever known,” but who had already lost confidence in the lancet in the then prevailing epidemic. He produces these cases on account of the appearances on dissection, “which indicate a disease very different from that which occasions a copious effusion of lymph and serum into the peritoneum.” The following case was watched attentively by the author from beginning to end.

Case 9. The patient was a lady, whom I had attended in several confinements, but who was this time to lie in at a short distance from town, under the care of the neighbouring surgeon. She was a plump, pale, relaxed woman, with a languid circulation, and subject to nervous attacks. She had a weak stomach, was often troubled by flatulence, at which times dry friction with the hand along the spine would produce the expulsion of a prodigious torrent of air from the mouth with an extraordinary noise; this was her state in her ordinary health. Her labour was very quick. When visited on the second evening she was quite well; *the following morning, being still well, she took the usual purgative of salts and senna;* it operated violently and painfully, and this was followed by diffused pain and tenderness of the abdomen with a rapid pulse. She could neither turn in bed nor bear pressure on the abdomen, but her skin was not hot, and her pulse not hard.* This was the state in which I saw her about eight hours from the commencement of pain. I gave her twenty minims of Battley's laudanum, to be repeated every two hours for three doses; and I ordered the abdomen to be covered with a bag of scalded bran. I saw her in the evening at eight o'clock; the pain of the abdomen was easier, but the pulse was rapid; she could not bear to turn, or to be pressed upon; the belly was larger than in the morning, and the breathing hurried. I now explained to her husband the danger of her condition, and said that if he wished for a consultation, in justice to the patient and to the physician, it ought to be now, not later; about two hours afterwards we succeeded in procuring the attendance of an eminent and able physician. The chief question was about blood-letting; the aspect of the case was very unfavourable, and I believe the consideration that, if it terminated fatally, more regret would be felt at the neglect of blood-letting than at the employment of it, in the prevalent state of medical opinion on the subject, determined us to use it. As it was now, if ever, that blood-letting was to be useful, we determined to carry it to faintness. The gentleman who bled her did not practice midwifery, and had no experience of such cases; but when he felt the pulse before bleeding, he remarked that though quick (it was nearly 130) it was soft. The blood spouted from the arm during the filling of the first two cups, and the fifth cup was more than half full before she felt faint; twelve leeches were next applied to the belly, and these were succeeded by the bag of scalded bran; she took a full opiate that night, and the following morning two drachms of sulphate of magnesia every four hours. When we met however the following day, she was much worse; her belly was tumid, her breathing short, her pulse quick and tremulous, and her mind rambled. An attempt was now made to support her with cordial diet, but she became rapidly worse, and died in the middle of the next night, less than forty-eight hours from the commencement of her symptoms. The body was not opened.” 83.

* We certainly were not aware that salts and senna formed the usual purgative on the third morning after parturition. We always understood that castor oil was the nurse's prescription—and we verily believe it is a much better one than that of the Doctor. He who doubts that the *peritoneal affection*, in this case, was brought on by the “usual purgative,” must be a sturdy sceptic indeed!—*Rev.*

The beneficial effects of a CONSULTATION, and of *prevalent opinion*, are rendered very conspicuous in the foregoing case! Had the "BLACK dose" (*black* indeed) not been given, the probability is, that Dr. Gooch would not have been required—and had Dr. Gooch gone by his own *unbiased* judgment, the probability is, that the patient would now have been alive.

Dr. G. remarks that, in all these cases the striking circumstances were, the rapidity of the disease, (generally less than three days) and the absence of morbid appearances in the peritoneum after death—although, during life, the whole surface of the abdomen had been painful and tender—and the pulse rapid as in puerperal fever. In our humble opinion, the striking part of the business consists in this—that there are diseases of *irritation* which resemble those of *inflammation*, and which are much more rapidly fatal, if mistaken.

Dr. Gooch next adverts to the case published by Mr. Dalrymple in Farre's journal, and re-published in our 19th number, page 201, with remarks. We there observed that Mr. Dalrymple's case "might tend to check the effusion of blood during a constitution of the atmosphere which engenders a host of diseases aping the purely inflammatory, but bearing very badly the vigorous depletion to which we have been accustomed for many years past."

In the Winter of 1827—8, peritoneal fevers were very common among the in and the out-patients of the Westminster Lying-in Hospital, of which an account was published in the 11th number of the Medical Gazette, by Mr. Hingeston.

"These cases were all attended by pain and tenderness of the belly, with a rapid pulse; the pain remitted, the skin was moist, and the pulse full and compressible. Most of them were cured, without the lancet, by keeping the abdomen covered with a large, thin, hot linseed-meal poultice, and giving ten grains of compound powder of ipecacuanha, repeated till the pain was gone. If the bowels were constipated, a purgative was previously given; if they were not so, the purgative was postponed till the pain had subsided. In one case, the dry skin and sharp pulse, indicating that the affection of the peritoneum was acutely inflammatory, 20 ounces of blood were drawn from the arm; ten grains of compound powder of ipecacuanha, with two of calomel, were given, and calomel alone was repeated every six hours: twelve leeches were applied to the abdomen, and afterwards a linseed-meal poultice. The gums became sore in twenty-four hours, and the patient recovered; but after the bleedings she had frequent faintings for several hours, and 'life was reduced to a low ebb.' A striking contrast this to the way in which bleeding to double this extent was borne in the peritoneal fevers from 1810 to 1820. Mr. Hingeston thinks that these cases, which are cured by opium, are the first stage, a lower degree of that acute inflammation which requires the lancet.

"For the following particulars I am indebted to Dr. Ferguson, one of the present physicians to the Westminster Lying-in Hospital.

"During the late autumn and winter there has been much sickness for so small a Hospital. To say nothing of the out-patients, sixty-two in-patients were admitted between September 11, 1828, and February 20, 1829; of these, twenty-eight, (that is, nearly half the number) had peritoneal fever; and of these seven died, that is, one in four. A large proportion of them was cured at once by ten grains of the compound powder of ipecacuanha, every three or four hours for three doses, and a hot linseed meal poultice over the whole belly. Sometimes this treatment removed the pain, but not the soreness; but this was generally removed by the application of leeches. As soon as the symptoms were

subdued, the bowels were opened by a mild purge; when these remedies failed the case was a bad one. It may be said by the advocates for blood-letting, that these bad cases might have been saved if they had been bled and purged early and actively; but in those in which the lancet was used, however early, its effect was discouraging. The patients fainted after losing a few ounces, the blood bore no marks of inflammation, and the remedy was followed by great and immediate exhaustion; even leeches, when applied in considerable numbers, and when they bled profusely, in some cases seemed to occasion great exhaustion. But in the cases which I have related from my own experience the lancet was used as early and actively as the warmest advocate for depletion could wish. Case No. 6 was bled without relief, and was immediately relieved by opiates and fomentations. Cases 7 & 8 were bled immediately on the attack of pain, the former to 30 ounces at once, the latter twice to faintness, beside leeches, calomel, and senna mixture, and they immediately and speedily sunk under the remedies. Of the 4 cases which occurred to one practitioner, No. 10 was bled immediately after the attack, in the evening, and the bleeding was repeated the following morning. The Case, No. 13, began during the violent operation of a purgative; the patient was bled to faintness about fourteen hours after the attack, the blood was not buffed, and she never rose out of the exhaustion which followed. In the case related by Mr. Dalrymple the patient was bled freely five hours from the attack and the effect was similar." 89.

Bad health prevented Dr. Gooch from seeing many cases of peritoneal fever during the last Winter, but he has minutely detailed one, some particulars of which we shall here notice.

Case. A woman, previously in good health, was safely delivered at 7 o'clock in the morning of Saturday, and continued well till 2 o'clock, p. m. on Sunday, when she had a rigor succeeded by fever and pain in the abdomen. For this she took a purgative which operated *fifteen times*. On Monday, at 2 p. m. she had another rigor, and continued feverish. Opiates and aperients were given during Monday and Tuesday, the pain and feverishness having almost entirely subsided. In the evening of Tuesday, she was feverish, restless, with head-ach, for which leeches were applied—and afterwards she was bled to six ounces. There was no pain, at this time, in belly or back. Early on Wednesday morning the medical attendant was called up, and found she had passed a restless night, and there were now pain and tenderness of abdomen, and still more in the region of the sacrum, where the bones of the pelvis had been separated in a former labour.

"As the pulse was 120, and hard, fourteen ounces of blood were taken from the arm, and I saw her for the first time this day at one o'clock. The pain and tenderness of the abdomen were still so severe, especially in the right iliac region, that she could not breathe without stopping, and crying out; and turning from her side to her back was so painful, partly from the tenderness of the belly, and partly from the pain of the sacrum, that it occupied a minute or two; the uterus was large, and could not bear pressure; above the umbilicus the abdomen was soft, and without tension; the breasts contained no milk, the lochia were scanty, the pulse, which before the bleeding in the morning had been hard, was soft, and 120; the bowels had been freely purged, and had acted that morning. The treatment agreed upon now was as follows: Twelve leeches were to be applied to the painful part of the abdomen; it was then to be kept constantly covered with a linseed-meal poultice, and when the bites ceased to bleed, fourteen more leeches were applied, succeed-

ed by the poultice. She took twenty minims of the sedative solution of opium immediately; she was to take two grains of calomel every three hours, and five grains of the compound powder of ipecacuanha every six hours, that is with every other dose of the calomel. When we met the next day (Thursday) every symptom was better excepting the pulse; the pain and tenderness of the abdomen were gone, and she could bear firm pressure, and could breathe without inconvenience; the belly was soft and undistended; the uterus was much smaller, and the lochia copious. She was in a warm perspiration, and her breasts were full of milk, but her pulse was still at 120. As the bowels had not acted for thirty hours, the compound powder of ipecacuanha was discontinued, and a dose of salts and senna given; this was at two in the afternoon. At eleven in the evening, when her attendant visited her she was not so well; she was in no pain, but her cheek was red; she was in a great heat and perspiration, and there was something about her aspect which he did not like. When I went the next day (Friday) to the consultation, I found the family in alarm, and was told that there had been a great change in the patient for the worse. The pain and tenderness of the abdomen had never returned, but her mind was confused; she was distressed with excessive flatulence, and the abdomen had suddenly become large and tympanitic; yet the pulse was only 116; the purgative had operated copiously, the gums were sore, and the tongue swelled. I have omitted to say that there was an inflammation about the right wrist which threatened to break. From the state of the mouth the calomel was withdrawn, and a dose of turpentine and castor oil ordered every three hours. In the evening she was still worse, bursting with flatulence, more confused in mind, and with a quicker pulse—128. She had had many little fluid motions, with a vast quantity of wind. The danger seemed so near that he made no appointment for the next day, and I never saw her again. She died that morning at seven o'clock, that is, about fifty hours from the second attack of pain in the belly.

"The body was opened the next day by Mr. Stanley. Putrefaction had made rapid progress for the time. The orifice in the vein of the arm, made four days before, had opened after her death, and discharged about half a pint of blood. On opening the abdomen the intestines were found immensely distended with air; there was no redness of peritoneum, no adhesion of its surfaces. In the lower part of the abdomen there were about three ounces of a bloody transparent fluid. In both ovaries the internal glandular structure was entirely gone, leaving only a hollow empty capsule; in that of the right ovary there was an aperture. The Fallopian tube on both sides contained pus, not at the uterine, but at the fimbriated end. There was no pus in the uterus; this organ was perfectly healthy: its veins were examined, and were undiseased; its inner surface was of a bright pink, more irregular at the part where the placenta generally adheres. The joints of the pelvis were next examined; the symphysis pubis moved readily: on cutting into it the cartilages were sound, but the space between them contained a bloody fluid. The sacro-iliac joints were still more affected; the sacrum projected from the ossa innominata half an inch; within the joint was a bloody fluid, mixed with some loose lymph." 94.

Our author suspects that the withdrawal of the opium, and the exhibition of the senna and salts contributed not a little to blast the fair prospects which dawned on the Thursday of the foregoing narrative. He further remarks that, he who looks for a copious effusion of serum and lymph as the essential appearances of puerperal fever, will be likely to deny that this was that disease at all. But Dr. G. is of a different opinion. He thinks it was puerperal fever, rendered much more dangerous than usual, by complication with disease in the sacro-iliac joints.

"The foregoing facts, and many others similar which I could relate, permit me no longer to doubt that there is a form of peritoneal fever in child-bed which although

it has the ordinary symptoms—pain and tenderness of the belly, with a rapid pulse, is very different from the peritoneal fevers which prevailed between 1810 and 1820; different in its duration, which is much shorter; in the way in which it is affected by blood-letting; and lastly, in the morbid appearances discovered after death. This form of the disease, like the acute inflammatory form, may occur only occasionally or sporadically, when it is readily and speedily cured by opiates, fomentations, gentle aperients, and sometimes leeches; or it may become prevalent or epidemic, and consequently more malignant; in other words, more fatal and difficult of cure.

“The most remarkable circumstance which the experience of the last few years has taught us about peritoneal fevers is, that they may occur in their most malignant and fatal form, and yet leave few or no vestiges in the peritoneum after death. The state of this membrane indicated by pain and tenderness of the abdomen, with a rapid pulse, appears to be not one uniform state, but one which varies so much in different cases, that a scale might be formed of its several varieties; this scale would begin with little more than a nervous affection, often removable by soothing remedies, and, when terminating fatally, leaving no morbid appearances discoverable after death. Next above this, a state in which this nervous affection is combined with some degree of congestion, indicated in the cases which recover, by the relief afforded by leeches, and in the cases which die, by slight redness in parts of the peritoneum, and a slight effusion of serum, sometimes colourless, sometimes stained with blood. Above this might be placed those cases in which there are, in the peritoneum, the effusions of inflammation without its redness, namely, a pale peritoneum and no adhesions, lymph like a thin layer of soft custard, and a copious effusion of serum rendered turbid by soft lymph. Lastly, the vestiges of acute inflammation of the peritoneum, namely, redness of this membrane, adhesion of its contiguous surfaces, a copious effusion of serum, and large masses of lymph.

“The experience of the last few years has brought me to this conclusion: that the sanguine hopes which were entertained, a few years ago, that the peritoneal fevers of lying-in women are always of an acute inflammatory type, and always to be cured by early bleeding and purging, as they were not borne out by the reasoning employed, so they have not been confirmed by subsequent experience.” 98.

How are we to act when new epidemics arise? is a question asked by our author. We believe the answer is—we must grope our way, as Sydenham did before our time. We agree with Dr. Gooch, that it is a most important object to see the patient as early as possible in the disease. But this does not depend on our own choice, but on that of nurses—“an intractable race.” The next advice is—

“To undertake the treatment of these diseases with the belief that they depend not on one and the same state, acute inflammation of the peritoneum, demanding one and the same treatment, bleeding and purging, but that they depend on different states in different cases, and epidemics, which require so much caution and discrimination to distinguish, that the most cautious and discriminating practitioner will sometimes err.” 100.

Lastly, Dr. Gooch would urge practitioners of midwifery to make themselves familiarly acquainted with those modes of treatment which appear, on competent authority, to have been, at times at least, most successful, so as to have them ready to apply whenever the occasion occurs. Many practitioners have but one set of ideas respecting puerperal fever, and one mode of treatment to meet it. When this fails they are bewildered, and before they can “search the scriptures,” for information, many of their patients are lost.

"The remedies, of the efficacy of which there is most evidence are, 1st, bleeding and purging; 2nd, emetic doses of ipecacuanha; 3rd, opiates internally, and poultices externally to the abdomen; 4th, mercury given so as to affect the constitution; 5th, oil of turpentine." 102.

On each of these remedies Dr. Gooch makes some judicious remarks. He properly observes that, there is a class of peritoneal fevers in which the affection of the peritoneum is acute inflammation—and that of the constitution is inflammatory fever—"although this inflammatory state often lasts only a few hours." These cases may be either sporadic or epidemic. We can only ascertain their nature by watching, as was said before "the constitution of the year."

"The power of mercury as a remedy for inflammation has been so clearly made out in inflammation of the eye, the liver and the pericardium, and not only its power, but the inadequacy of blood-letting to overcome inflammation in these organs without the aid of this remedy, that it deserves a fair trial in peritoneal fevers. I have never given it systematically in a number of cases, but what experience I have is in its favour. In the Westminster Lying-in Hospital, when ten or twenty grains of calomel used to be given every day, with purgatives, the gums sometimes were affected, and these patients invariably recovered. During the last winter it was tried in a few cases; when the gums became affected the patients recovered; but in others the disease was more rapid than the remedy, and the patients died without the mercury having affected them. The method of using it is to give two grains of calomel every two hours until the gums become sore, or without this effect, until there is evidence that the circulation is drawn from the peritoneum to other surfaces, especially the bowels, the kidneys, and the skin; and this is attended by a subsidence of the disease, indicated by a diminution in the frequency of the pulse, a cessation of the pain, and the patient being able to turn in bed, and bear pressure. During the use of the calomel, opium generally requires to be used at longer intervals, as five or ten grains of the compound powder of ipecacuanha once in four hours." 106.

The symptoms which call for the use of opium are, severe pain, profuse purging, or sinking of the general circulation. Even when the gums are sore, Dr. G. thinks the calomel should not be suddenly withdrawn, but given at longer intervals. This is the plan successfully employed by Dr. Farre.

"There is a class of cases attended by pain and tenderness of the abdomen, with a rapid pulse, which does not require bleeding, which does not bear it to the extent to which it is necessary in the inflammatory peritoneal fevers, and which is speedily and effectually cured by opiates internally, with hot poultices to the belly, aperients, and sometimes leeches. There is reason to believe that this form of the disease is present when the patient in her ordinary health is delicate and nervous—when the pain and tenderness have followed any irritating cause, such as severe after-pains, or a gripping purge—when the pulse, although quick, is perfectly soft, and even weak, and this opinion is strengthened if blood has been drawn without relief, and without the signs of inflammation on its surface. The best way of treating these cases is to wash out the large bowels by a very large glyster, to give ten grains of compound powder of ipecacuanha every three hours, till the pain is gone, to keep the abdomen constantly covered with a warm linseed-meal poultice, and after the pain has ceased, if the abdomen continues sore, and the pulse quick, to apply leeches, and give a mild purge. When I doubt the nature of the case, I apply leeches at the beginning." 107.

We have now brought the subject of peritoneal or puerperal fever to a close, and have endeavoured to let both authors speak for themselves, and as much as possible, in their own idiom. In this respect we have some-

what deviated from our usual course, that of preferring condensed analysis to frequent extracts. Such works as those which are now before us do not often present themselves—and we have proportioned the extent of our reviews to the value which we conceive they possess. To the several other articles in Dr. Gooch's book we shall dedicate such space as we deem advisable; but with them, we shall be able to deal more in our usual analytical style.

II.

TRANSACTIONS OF THE MEDICAL AND PHYSICAL SOCIETY OF CALCUTTA. Vols. II. and III. Calcutta, 1826-7.

ART. I.—OBSERVATIONS ON DISEASES OF THE SPLEEN, PARTICULARLY ON THE VASCULAR ENGORGEMENT OF THAT ORGAN COMMON IN BENGAL.
By *W. Twining Esq.*

To acquire a knowledge of the diseases of an organ, and of the influence of such diseases on the general system, it is not absolutely necessary to know the real function of that organ in health. We know what bronchocele is, and we can often cure it, without being able to ascertain either the use of the thyroid gland or the cause of its enlargement. The function of the spleen is a matter of mere speculation; but its diseases are of very serious importance, especially in warm climates, and even in the marshy districts of our own country. It is in India, however, that splenic diseases are seen on a large scale, and as Mr. Twining has had ample opportunities of investigating the subject, a brief account of his paper may not be uninteresting.

"The vascular engorgement of the spleen to which I allude, is in this country attended with a peculiar state of constitution, unequal to bear the action of mercury, without great hazard of inducing alarming debility, and depression of vital power, with tendency to sloughing of the lips, cheeks, and gums, which when once commenced, does frequently, or I may rather say, generally, terminate fatally. The state of constitution to which I now allude, appears to depend on some condition of the solids, or fluids, or of the vital actions, superadded to the state that is generally denominated debility." 351.

This disease is frequently seen idiopathic in children, arising from damp climate, want of exercise, bad clothing and feeding, &c. though it is most commonly a sequela of fever:—"In fact it is the most invariable consequence of acute diseases among children of weak constitutions in Bengal." A similar enlargement, however, takes place in the spleen of adults, in consequence of various debilitating diseases—especially intermittent and remittent fevers.*

"Vascular engorgement of the spleen is characterized by a pale, and often lurid

* Of the European troops who returned from Arracan, a great number laboured under the disease which is now to be described.

cadaverous countenance; the tunica albuginea of the eye has a pale blue or pearly appearance, similar to that observed in hectic patients; the skin is generally dry, and there is some morbid heat of surface, especially over the belly. There is tumor and tenderness in the region of the spleen, with tension at the epigastrium, which often extends across to both hypochondria. The patient suffers from thirst, though his tongue is generally clean and moist; sometimes it is of a pale and glossy hue, having its surface marked with deep fissures: more rarely it is of a morbid red colour. The stools are generally scanty and frequent, with tendency to constipation; urine pale and copious. The pulse is quick, and occasionally hard; appetite indifferent and digestion imperfect. The debility is greater than would be at first apprehended from observing the size and appearance of the patient.

"Agues frequently return while these symptoms remain, and the hot stage is protracted, and generally peculiarly distressing. This I should denominate the *irritative stage* of tumid spleen: and I have reason to believe, that its peculiar combination of constitutional irritation with obscure pyrexia, and general debility, are most frequently found to exist after remittent and intermittent fevers of low and damp situations, where there has been a premature use of wine, and undue quantity of stimulating diet.

"This febrile or irritative stage occurs less frequently than the simple congestion, in which the tumefaction of the spleen is not only greater, but more distinct, because there is less general elastic tension of the belly. There is less tenderness on pressing the spleen. With this condition of the local disease, we find that the pulse is low and weak, face of a pale and lurid colour, tongue clean and moist, skin cool with a peculiar dry feel, like a thin satin loosely laid over the soft cellular structure: there is an hectic eye, and pale urine as in the irritative stage, but less of pyrexia. There is generally more appetite, but assimilation is imperfectly formed, and nutritious food does not restore the strength. Agues relapse more rarely than in the irritative condition, except at the lunar phases, or when the bowels become obstructed, and the cold stage is most distressing from the great distension of the spleen. If this were denominated the *congestive state* of tumid spleen, it might sufficiently indicate the local disorder and corresponding constitutional derangement. This is the state which Dr. Pemberton alludes to, when he speaks of the swelling of the substance of the spleen, unattended by inflammation. Page 71, see also Morgagni, Epist. 36. Art. 17, and 23.

"In both the above described stages of diseased spleen, the respiration is low, languid, and imperfect, the lungs being but partially filled with air; the stools are mostly of a dark colour, which, with the lurid cadaverous countenance, and pale lips, indicate the imperfect performance of those functions whereby the blood is decarbonized. It would not appear correct to ascribe the dark colour of the stools in these cases to disordered bile: repeated and continued attention to this subject leads me to believe, that in the disease now treated of, the whole system is suffering; and there is a feeble effort of nature to compensate for the inefficient action of the lungs and skin, the great intestines secreting carbon, which gives rise to the dark coloured stools." 357.

In females, amenorrhœa is an early attendant on the disease. The muscular debility, unattended with corresponding emaciation, and the great despondency of mind, may probably be connected with the decarbonized state of the blood in this disease.

"Either the irritative or the congestive stages of disease before described, are occasionally followed by the *indolent tumid spleen* which is attended with little or no pain on pressing over that organ: while the spleen, though not exceedingly large, is often very hard, and its extent well defined. There is less appearance of debility, more appetite for food, and digestion is more perfectly performed than in the two foregoing forms of disease. In this indolent stage, there is often a dry cough, attended with pain

in the left side of the chest, occasionally shooting to the centre of the scapula, or to the shoulder. The use of mercury, though not to be recommended, is less hazardous in this state of disease, which is always obstinate, and very difficult to cure. 358.

The progress of the malady is more or less rapid according to the injury which the constitution has sustained from climate, fevers, &c. The disease often runs its course rapidly, death being preceded by dysentery, dropsy, or hæmoptysis. Intractable diarrhœa is the most common precursor of death in Bengal. From an attentive consideration of the causes and the phenomena, our author thinks it would not be any violation of propriety, if the disease in question were denominated "*the endemic cachexia of those tropical countries that are subject to paludal exhalations.*"

The full detail of constitutional symptoms is considered necessary by our author, in order to put practitioners on their guard against mercury, the employment of which, in such constitutions, often induces gangrene of the mouth.

"The treatment generally found useful in that modification of enlarged spleen which is most frequent in Bengal, is a steady perseverance in a course of purgative medicines, combined with bitters and some preparation of iron, which, with a mild, and rather abstemious diet, will almost invariably remove recent enlargements of the spleen, when in that form which I have ventured to denominate *congestive*. The *irritative state* of tumid spleen, which is attended with more decided pyrexia, and more morbid sensibility of the organ on pressure; requires the application of leeches to the side, but sometimes V. S. is preferable; and when the febrile symptoms are more urgent, I have thought the cure proceeded more favourably when the patients were purged two or three days by the Pulv. Jalap. Comp. before the sulphate of iron was administered with purgatives and bitters. 362.

A great uniformity of morbid appearances, *post mortem*, being found, not many dissections have been reported, as indeed it would be only a useless repetition of the same thing. The following may be considered as a resumé of the pathology

"Among the morbid appearances which are most frequent, we observe, 1st. A soft enlargement, resembling a great clot of blood, wrapt in a thin membrane; this varies in colour from black to brown or blue; and when we attempt to lift the spleen, the fingers are thrust through the membrane, and the organ breaks down in the hands, becoming a putrid gore. 2d, Next in frequency, we find opacities of the peritoneal surface from lymphatic deposit thrown out during superficial inflammation; or possibly only the effect of repeated over distension. 3d, Adhesions of the peritoneal coat of the spleen to contiguous viscera, which adhesions are by no means a general result of tumid spleen in Bengal. 4th, In a few old cases, we find a more indurated friable spleen, that breaks when handled without much force, like a piece of old moist cheese. 5th, And still more rare, is the cartilaginous lumpy hardness to which we give the name of *schirrus*.

"Besides the above appearances of disease, I have sometimes met with an uniform pale white or milky colour of the peritoneal coat of the spleen, in patients who had been long subject to agues: the substance of the spleen being soft and flexible, but the peritoneal coat more than usually tough, and wrinkled, like a thin bladder that had been dried, and afterwards wet in hot water.

"In examining the bodies of patients who have suffered spleen disease for a long time, and are carried off by a purging; numerous small ulcers are found on the internal membrane of the great intestines, while the peritoneal coat appears either quite healthy, or paler than usual." 363.

A great number of cases are detailed by the author; but we do not deem it necessary to analyze more than the descriptive, narrative, and didactic portions of the paper. Mr. Twining informs us that he has given the tincture of iodine in six cases of chronic tumid spleen, without the least advantage. Enlargement of this organ being a very common disease among the natives of Bengal, the remedies employed by them are not unworthy of notice. Their general plan is to apply the actual cautery over the region of the spleen.

"Slight incisions are first made through the skin with a lancet, (five or seven are most common, though in bad cases 20 incisions are made,) a needle is then inserted at each of these cuts in the skin, and thrust about half an inch obliquely into the integuments or muscles of the belly; after which a heated iron instrument, the size of a large nail, is applied to each of the incisions. The patient is ordered a low diet, chiefly of fish, curry, and rice, with injunctions to take but little drink, and to eat no butter, milk, oil, or fat. A mixture of aloes, garlic, and vinegar is given daily; and about a grain of kussees (common sulphate of iron, as it is sold in the bazar) is given with each dose. The quantity of aloes is regulated so as to produce three stools in 24 hours.

"This I consider a very efficacious plan of treatment, if used in recent cases; and I have seen numbers of persons with the marks of having been severely cauterized over the left hypochondre, in whom the enlargement of the spleen has entirely subsided. But there exist cases not to be cured by the utmost perseverance in this treatment; for in the course of last winter, several native patients were brought to my house, exceedingly emaciated, and suffering from indolent enlargement of the spleen: which had acquired such size, that I considered the disease incurable in those reduced constitutions. These patients all had very numerous scars from the cautery, and said they had taken the aloetic remedy with vinegar; but received no benefit from persisting in its use, for a very long period. The usual Bengal prescription is

Garlic, seven tolahs, or about - - - - - 1253 grains.

Aloes, two tolahs, " - - - - - 358 ditto.

Kussees (or sulphate of iron) 1½ ditto, or - - - - - 268½ ditto.

Mixed, and made into 57 bolusses, one for an adult every morning, ½ to a woman, and ¼ to a child from two to twelve years of age. This medicine is ordered to be taken in a small quantity of confection of roses." 400.

Mr. T. has often employed issues over the region of the spleen, with benefit in chronic cases, sometimes using the moxa, and occasionally the heated iron. "The effects of the latter appeared to be far superior to blisters in chronic cases." European patients asserted that they suffered less from the actual cautery than from the moxa.

Mr. Twining's paper is followed by another very short one by Mr. Wilson on "the native treatment of diseased spleen." This needs but little notice. The following passage shews that the Hindoo pathology is not very different from the fashionable doctrines of the day in this country.

"The causes of all visceral complaints are declared by the Hindoo physicians to be indigestion, occasioning accumulated fæces, and visceral obstruction. In this case, the belly swells, with pain and heat, the evacuations are scanty, there is much flatulence and uneasiness, the superficial vessels become enlarged, and assume a reijiform appearance, the appetite is lost, there is great prostration of strength, and much languor, with vertigo and fainting, the colour leaves the lips and the palate, and the person looks like a *preta* or ghost. When the biliary humour is especially affected, the pain, heat, and fever are more intense, and the skin is of yellow tint; and when the phlegmatic humour is chiefly vitiated, the pallor with lassitude and drowsiness are most remarkable." 414.

The Hindoo treatment consists chiefly in purgation with castor oil and cow's milk, and a number of herbs in decoction, probably of little efficacy.

When the spleen becomes enlarged, and much pain is felt, blood is taken from the left arm, the spleen being rubbed at the same time to promote the flow of blood. If these measures fail, the actual cautery is employed in one of two ways.

"In the milder application, the part is washed with warm water, and the number of places to be burned are marked by so many drops of oil. These are covered with small pieces of young plantain leaves, and a wet cloth is laid over the whole. A piece of lighted stick, of the wood of the Jujube tree, is then applied to each spot. No pain is felt upon the contact of the burning wood, but on removing the cloth and leaf, a vesicle is formed, which ends in an ulcer.

"When this is unavailing, recourse is had to the second operation, in which iron needles, heated red hot, are plunged into the side above the spleen in various places according to the discretion of the operator, usually not fewer than seven, nor more than twenty. It seems likely that they penetrate its substance. The needles are made to penetrate to a considerable depth, or according to the native idea, through the spleen. The operation is attended with violent pain, but is said rarely to fail of success." 418.

ART. 2. ARRACAN; ITS MEDICAL TOPOGRAPHY, AND THE DISEASES WHICH AFFECTED OUR TROOPS IN THAT QUARTER. By Mr. R. N. Burnard.

A great portion of the third volume of the Calcutta Medical and Physical Transactions is occupied with details of the medical topography and diseases of Arracan and Rangoon. The difficulties and dangers into which our troops, as well as our medical practitioners, were thrown, during those disastrous, though triumphant expeditions, "through jungle, brake, and fen," will long be remembered by those who participated in them;—but we fear that they will be too faintly portrayed on the page of medical history, in consequence of that cold apathy which freezes the ROUTINE PRACTITIONER'S breast, on all occasions where his daily avocations are not directly concerned! The medical topography and the prevailing diseases, however, of all countries, are interesting, no matter how remotely situated, since these portions of medical history shew the connexion between causes and effects on a large scale.

ARRACAN is now become more than usually interesting to Englishmen in consequence of the additional spread of our conquests in that direction. If it has been the theatre of glory to our warriors, it has also been their grave! Few situations have probably been ever occupied by an Indian army so productive of disease, misery, and mortality, as Arracan. The sickness there was not the casual visitation of an epidemic, like the cholera, but was evidently *endemic*—dependent on local causes, and those causes visible to every one who made medical topography his study.

The military operations against ARRACAN having been completely successful, there were no depressing passions in action at first; but these were soon after called forth by "the hourly sight of death and suffering among their comrades," and the prospect of a long residence in the same situation. The following is a concise topographical description of this pestilential spot.

"It is situated in Lat. 20 deg. 35m. N. Long. 93 deg. 32m. E. distant in a direct line from the sea about 50 miles, but having a navigable river running close up to it, and then dividing into several smaller branches, which flow through the town in every direction.—The average rise of the tide is about eight feet at the town; but spring tides rise higher, and consequently cover a considerable space of ground, which at other periods is free from the flux and reflux. The banks of the stream generally through the town, are low, and covered with sedge, coarse grass, and a few bushes, serving as a receptacle for filth of every description. The stream itself is made the receptacle of dead bodies, many of which in the most offensive states of putridity, are constantly to be seen, at the different points where an obstruction is offered to their progress towards the main stream. Proceeding towards the sea; below the town, the banks rise very little above the level of the water, are covered with jungle, and intersected in every direction by smaller streams, forming a complete and impassable Sunderbund. Arracan bears about N. E. from the mouth of the river, and three distinct and parallel ranges of hills are visible from it: the town itself is situated, with respect to the general line of the first range nearly as the apex of a triangle to its base; but from the number of insulated hills and slight curvatures in the range, it appears nearly embayed in the recess of the hills. The height of the highest hill in the first or Arracan range is 550 feet, of the second and third ranges respectively estimated at 2000 and 4000 feet. The hills, generally speaking, are abrupt, and many of them insulated; they are covered with jungle, and have many channels cut in them by the violence of the periodical rains. The waters thus collected in the hollows between the bases of the hills, either meander among them till received into some channel which conveys them to the river, or they, for want of an outlead, lie till absorbed or evaporated. About a quarter of a mile from the N. W. angle of the fort of Arracan is a large lake, extending in this meandering way to a distance of several miles amongst the hills: this lake is full of weeds, and its banks low and marshy; the average depth of water I think about eight feet, but very unequal. In every situation where water can lie during the heavy rains, it collects, and forms a swamp, capable, when the drying process commences, of giving out miasmata of a destructive nature. The hills consist principally of schistus; no granite (as far as I know) has been observed; the soil is luxuriantly rich, and the mango and other trees attain great perfection in the vallies: on the hills the jungle is principally underwood, but on the higher ranges bamboos are said to abound. Beyond the highest range of hills, the country is described as being a fine open champaign with navigable streams, and a much less quantity of rain, and is stated to be particularly healthy, a statement which meets confirmation from the immunity enjoyed by our troops during their late residence on the banks of the Irrawuddee. It is also said, that such of the Mughs as could afford it, and their Burmese conquerors always withdrew to the banks of that river during the rainy season."

"From whichever quarter the wind may blow, it must, before reaching Arracan blow over a considerable extent of ground in almost every variety of condition: the consequence is, that every gale comes impregnated with the elements of disease. The grand difference between Arracan and the Delta of the Ganges consists in the want of a general and abundant annual inundation. In Arracan no river of magnitude sufficient to overflow the low lands exists, and a sufficient quantity of water either falls from the clouds, is furnished by high tides, or descends from the hills to keep up a perpetual renovation of swamp, or rather to place the soil in that state of approximation to dryness which I believe to be essential to the extrication of marsh miasmata. In Bengal, as is known to every man of observation, the period at which the endemic fever chiefly prevails, is when the inundation has subsided, and the surface then approaching to a dry state, is exposed to a powerful sun; and the fever thus produced is particularly severe in situations where jungle of any kind is within the sphere of inundation. The high state of cultivation in Bengal has doubtless done much to ameliorate the climate; and in the rice grounds, the more extensive the inundation the less is the insalubrity subsequent. This extent of inundation,

which absorbs as it were the morbid principle, and distributes it over so large a space as to render it comparatively inert, is wanting in Arracan; and in every place, similarly situated, there must be marsh in every stage of moisture and approaching to dryness." 31.

Particular spots were found to be more unhealthy than others—and these corresponded exactly with their greater exposure to streams of air coming over malarious localities. It would be difficult to imagine a place more copiously supplied with the elements of disease, than that which our author has sketched out in the foregoing extract;—and the reader will not be unprepared for the announcement of a severe visitation of sickness among our troops. The general characters of the fever here prevalent did vary essentially from those of the common endemics of other parts of India.

"The attack of the fever was sometimes sudden; but in general, loss of appetite, lassitude, slight head-ach, and nausea, preceded the development of the febrile symptoms: a sense of coldness was generally felt, but did not, except in a few cases amount to distinct rigor; and when shivering did take place, it might be looked on as the commencement of a disease which more speedily and decidedly assumed the intermittent type. To the symptoms above-mentioned, in a few hours generally succeeded heat of skin, head-ach, with a sensation of tightness and weight over the eyes, flushed countenance, full and quick pulse, white and dry tongue, anxiety, restlessness, great thirst and disposition to vomit: in some instances, the irritability of the stomach so great as to reject every thing. The bowels sometimes costive, but more commonly small, scanty and vitiated stools were passed, with some griping and heat, every five or six hours: no feeling of relief was produced by these evacuations, the patient complaining that they were unsatisfactory, and of a sensation of a load still remaining. What was rejected by vomiting usually consisted of mucus, and the fluids drank: very little bile, in the greater number of cases, passed into the stomach. Whether produced by deficient secretion, or by a spasmodic constriction of the ducts, bile was in many instances absorbed, and conveyed into the circulation, tinging every part of a bright yellow, giving to the fever the distinctive character of the endemic of the West-Indies: few cases in which this was decidedly marked terminated in recovery. A different kind of yellowness, more intermixed with a sallow muddy tint, and by no means of so deep a hue, was visible in some of the febrile cases; but as it only occurred in those of longer duration, and where there was reason to suspect derangement either in the functions or structure of the liver, I conceived it to be more properly a sequela than a symptom of the fever. In most cases where the fever from the commencement shewed a disposition to intermit, it was by assuming the double tertian type, but this passed not unfrequently into the remittent. Where the event was fatal, it was usually by lesion of some important organ, and that induced gradually, not by the immediate and active operation of febrile excitement, and the most common mode was by serous effusion in the brain, or between its membranes." 35.

"Dysentery and diarrhoea were the diseases which proved most fatal, not in their acute form, but ensuing as a consequence of fever; and their ravages, particularly amongst the native troops, were very great. The usual course was for a man to be admitted into hospital with fever, which after sometime is succeeded by purging: the fever then goes off, and after a time returns; and the purging ceases, in this manner alternating perhaps for several months, when anasarous swellings take place, extreme emaciation, and the patient dies perfectly exhausted. The purging is of various characters, sometimes light yellow evacuations, with a trifling degree of consistence, and not attended with much griping; others consist of this yellow discharge, intermixed with green bilious colluvies, and attended at times with severe griping: from some the discharges are merely dirty

water, or like the washings of raw meat; and from some the intestinal mucus is discharged in considerable quantity, mixed with blood, and occasioning severe pain. Prolapsus of the rectum takes place in some of the most severe cases; and I have seen a considerable protrusion of the intestine, distended as if infiltrated by serum, and with points of blood oozing from its mucous surface without ulceration. Amongst the evacuations streaks of pus were occasionally to be observed; but the more frequent forms were the sanious, and the mixed green and yellow discharges. In the latter stages of some of these cases, the irritation extending to the bladder, gave rise to dysury. The debility continuing to increase, dropsical swellings make their appearance, sometimes generally, sometimes locally, but most frequently commencing by anasarca of the feet and legs, which gradually extends to the body. Depositions of water in the abdomen are less frequent; but I have used the paracentesis in some of these cases, more with a view of relieving the patient from the load and oppression caused by the fluid, than with a hope of ultimate success. Few indeed are the cases of this chronic dysentery, in which recovery takes place after the appearance of dropsical swellings. In the cases where the collection has been in the abdomen, this discharge of the fluid generally enables the examiner to discover enlargement of the liver or spleen, or perhaps both." 40.

The causes of the above and many other forms of disease were obvious enough. Febrific miasmata, exposure to the weather, and especially to the rains and intoxication, were the chief items in the etiological catalogue.

"In the treatment of the disease, much depended on the period at which it was instituted. During its formation, the application of decided measures frequently succeeded in rendering what would otherwise have been a remittent, intermittent; or at least in making the first remissions so distinct, that the disease was speedily disposed to assume the intermitting form: that it rarely happened that any measures at once cut short the disease, was to be expected, the patient still continuing within reach of the exciting cause, which had produced the effects for which remedial measures were instituted, and which was not likely to operate with the less force because the system was already under its influence. In proportion also to the suddenness and inflammatory appearances of the attack, were decisive measures more plainly indicated at the commencement, and more frequently successful. The mode of treatment which I was in the habit of adopting, when called to a patient labouring under the first symptoms of an attack of this fever, particularly if marks of determination to an important organ existed, was immediately to open a vein, and suffer the blood to flow *ad deliquium*, or the *relief of the symptoms*. One of these occurrences, and not the quantity of blood taken, is the criterion by which the effects of the measure must be estimated: having a determined object in view, viz. to create a change in the existing state of things, and if possible to break the diseased associations at once, the remedy must be applied decidedly, and carried to the extent of producing an effect on the system afterwards to be maintained by other measures. From twenty-five to forty ounces is the quantity usually required; but I had no hesitation in going beyond this when circumstances demanded it. The feeling of weakness in these cases, especially at the commencement, is not real; it arises from oppression, and when that oppression is relieved, the strength is in a great measure restored. The immediate effects of a bleeding carried to the extent above mentioned, are, relief of organs labouring under oppression from congestion, an alteration in the circulation, generally followed by profuse perspiration, and a mitigation, if not altogether a solution, of the paroxysm. To maintain these favourable symptoms, when produced, other measures become necessary; and the first of these is to clear the alimentary canal by purgatives, and those liberally administered. Calomel alone, or with Cathartic extract, followed by Magnes. Sulph. in Infus. Sennæ in repeated doses, till free or even severe purging is produced, answers best for this

purpose. If the head-ach, pain, and sense of tension over the eyes have been severe before the bleeding, the hair should be cut short, or shaved off, and wet cloths kept constantly applied over the forehead; whilst, to allay thirst, the patient may be allowed the free use of acid drink. Soda water is in many cases, (particularly where there is irritability of the stomach,) most grateful. After a longer or shorter interval, according to the violence of the attack and the idiosyncrasy of the patient, the symptoms returned; but if they had been actively combated at first, generally with reduced violence, and very rarely required the use of the lancet a second time; the head-ach, or tension and tenderness of the epigastrium, with irritability of the stomach, being best relieved by the application of leeches, and sometimes by blistering over the latter: blisters to the shaven scalp were more adapted to an advanced stage of the disease, when serous effusion was threatened in the brain or its membranes. Where there was a dry heat on the surface, and no particular marks of determination existed, no tendency to vomit, and the head-ach apparently depending on the general increase of the circulation, the cold affusion proved both useful and agreeable, and in the natives few of whom required bleeding, was a most valuable remedy. These preliminary measures having been employed, or such of them as were deemed advisable, the remedy next resorted to was mercury, or rather calomel alone, or combined with camphor or antimonial powder, or both. The usual prescription was three grains of each of these substances every four or six hours; and if sufficient evacuations were not produced by it, a purgative was occasionally interposed. In one or two instances, the camphor excited an unpleasant sensation of heat in the stomach; but more frequently it appeared valuable as an auxiliary in determining to the skin, and allaying irritability.* Where there was much disposition to vomit, I have occasionally substituted a small quantity of opium for the antimony. In a few cases, I have given calomel alone, in doses of scr. i. where I have wished to produce a rapid and decided mercurial effect: in some it has answered, but repeated disappointments have convinced me, that though safe it is not so infallible as some authors would lead us to suppose. Mercurial frictions, and dressing blistered surfaces with mercurial ointment, were also employed, but never relied on as principal remedies. Great difficulty was often experienced in procuring the mercurial impregnation, and its effects were often seen in the subsidence of the fever. Salivation is by no means essential; and when severe, is of itself a formidable disease: when mild, it is perhaps the most desirable method in which the mercurial action can be developed, as it shows, in the most obvious manner, the extent to which the operation of the remedy on the secretory system at large extends; and the variations in the salivary secretion are valuable, as marks of the approaching return or actual existence of the febrile state. That mercury, however administered, often fails to affect the system,—that having produced what is called its specific effect, fever not unfrequently continues its course to a fatal termination,—that relapses often take place whilst the system is under its influence,—and that its administration to some habits is poisonous, are facts too well known to admit of denial; but it is not from the occurrence of a few untoward events that a principle of practice is to be laid down; attentive observation, on an extensive field of experience, will show the proper degree of importance to which the objections against the remedy are

* "Since my return to our own provinces, I have received from England the Report made to the Madras Government on the fever of Coimbatore and adjoining districts, by Drs. Ainslie, Smith, and Christie, and am happy to find the ideas of those gentlemen on the subject of combining camphor with calomel so congenial with my own. 'There appears to be something in the nature of camphor, which peculiarly fits it for being given in conjunction with calomel: it mitigates in some measure the acrimony of this mineral, tends to calm the nervous system, and gives the fluids a tendency to the skin.'—*Report on the Coimbatore Fever*, Note, page 154.

on this account entitled: and I believe I am borne out by the general experience of my professional brethren in this country, in saying, that we have no remedy of such general utility in febrile affections as Mercury. Opium was by me rarely employed, except when the fever had become decidedly intermittent, and then was given as a stimulant, at the approach of the cold fit." 57.

For the cases and meteorological tables we must refer to the volume itself. The paper in question is very creditable to the author.

III.

TRAVELS IN TURKEY, EGYPT, NUBIA, AND PALESTINE. By *R. R. Madden*, Member of the Royal College of Surgeons.

[ART. II.]

In our last Number we did little more than introduce Mr. Madden to the notice of our readers, and left him in the "city of the plague," Alexandria, where he resided two years. He arrived in that city just at the period when the pestilence was commencing its ravages.

"The plague daily increased in violence, eighteen a day of the natives perished, and few days passed over without the death of Europeans. For so small a population as that of Alexandria, say sixteen thousand souls, the mortality was considerable: every house was shut up, the servants were not suffered to go out, money was passed through vinegar before it was touched, letters were smoked, papers were handled with tongs, passengers in the streets poked unwary strangers with their sticks, to avoid communication, people thronged round the doctors' shops, to know how many died in the night, the plague was discussed at breakfast, contagion was described at dinner, buboes and carbuncles (*horresco referens*) were our themes at supper. The laws of infection were handled by young ladies in the drawing-room; a cat could communicate the plague, but a dog was less dangerous; an ass was a pestiferous animal, but a horse was non-contagious. Fresh bread was highly susceptible, but butchers' meat was non-productive.' If you looked at a man, he felt his groin; if you complained of a head-ach, there was a general flight; if you went abroad with a sallow cheek, the people fled in all directions; if you touched the skirt of a Christian's coat, you raised his cholera, and if you talked of McClean, your intellect was suspected to be impaired. Heaven preserve you from a quarantine in Egypt! It is not the death of one's neighbours which is so overcoming; I am now accustomed to coffins; I can hear of a case next door without a sympathetic pain in my axilla; but it is the horror of eternally hearing of plague; it is the terror of contagion, which is depicted in every face; it is the presentation of pestilential apparitions and discourses to the eye and to the ear, morning, noon, and night, which make a house in quarantine a lazar domicile, for the anticipation of death and the anatomy of melancholy." 253.

Of all human horrors, earth has nothing to compare with the dismay depicted on the features of the sick in the pest-houses. Our author endeavoured to persuade the Doctor of one of them (*M. Marpurgo*) to employ brandy, wine, and bark, but he refused, alledging that the celebrated Jew physician here had made use of much stronger stimulants, namely, *prussic*

acid and *nux vomica*, without success. There was no resisting this argument.

After remarking that, in every stage of plague, Nature appears to lie prostrate under the influence of a poisonous miasma, and ultimately sinks from want of force to draw out the eruptions on the surface, Mr. M. proceeds thus:—

“The bubo recedes, or the carbuncle diminishes, or neither appear at all externally; but they have seized on the internal vital organs, and the immediate cause of death has been shown by dissection to have been carbuncles on the liver, lungs, spleen, or mesenteric glands; in short, it appears that the whole glandular system is the seat of the disease. I have seen all the different species of plague enumerated by Russel and the French authors, and I have no hesitation in pronouncing all these different species of plague to be the symptoms of *one class* only; and I assert there is but *one* indication to fulfil, namely, to assist nature to expel the poison by strengthening the exhausted powers of the constitution, and enabling it to throw out the morbid matter. By what means is this to be done,—whether by emetics, by purgatives, by bleeding, by calomel, by mercurial unction, or by oil friction? There is none of these means I have not tried, and out of the first eleven patients so treated I lost nine. I had recourse to another mode of cure: I certainly did not see it employed by any other person; and although the propriety of adopting it has been glanced at by Assaline, it never was carried into effect, or at least pushed to the extent at which I found it an invaluable plan of treatment. I do believe what I now inform you of will one day or other acquire me some little credit, and that I shall be considered, in some sort, instrumental to the conquest of a disease which hitherto has been deemed almost invincible.

“Strong stimulants diffusible and permanent, I now tried; I commenced with wine and brandy the first moment I saw the patient; whether the eye was suffused, the cheek flushed, and the skin arid, or the low delirium set in or not, I administered it in the following manner. The first dose was a tumbler of hot brandy and water, about one third spirit, this sometimes was vomited, and again repeated; the second time it usually remained on the stomach, and in the course of two hours it generally produced perspiration, even after James's powder had failed: two or three hours after the first dose, another was exhibited, and the patient would feel less of the burning pain at the heart; if vomiting supervened, it was again repeated, and during the day, it was now given every four or six hours, according to circumstances. The buboes commonly increased in size, and profuse sweating was often followed by *petechiæ* or livid spots on the chest; when I saw this, I was always sure of my patient. The second day I increased the strength of the dose; instead of one-third spirit, I gave one-half, every eight hours, no intoxication came on, but a lethargic drowsiness was common enough, continuing till the perspiration broke out, or carbuncles appeared externally. If on the third day the patient was decidedly better, I kept up the excitement with strong cyprus wine, in frequent but small doses of two table spoonful every two hours; but if the bad symptoms were unabated, I continued to give the hot brandy and water in increased quantities, till some decided change took place: this active treatment it was seldom necessary to pursue beyond the sixth day. Indeed, in plague, if the patient live to the sixth day, he is very likely to recover; but the third day is that which is most to be feared. The only treatment was once or twice opening the bowels with enemas, for purgatives by the mouth do no service; and sponging the body frequently with vinegar and water: the head was constantly kept soaked with towels dipped in vinegar, and the buboes were poulticed with very hot cataplasms, sufficiently hot to give pain, and they were allowed to burst spontaneously.” 269.

Under the above treatment, 75 per cent. recovered. In Candia, out of

nine cases which our author attended, five recovered, and some of these were nearly hopeless when he first saw them. When he arrived in Alexandria, he proposed to Mr. Salt and to Mr. Thurburn to attend plague patients exclusively for one season, with an hospital of his own, but this could not be effected. Mr. M. then contented himself with daily attendance at the Plague Hospital—not under the idea of the disease being non-contagious—far from it; but because he did not think it, under ordinary circumstances, so contagious as people imagined.

“Plague, under ordinary circumstances, is with difficulty communicated; I say so advisedly: but, like all other diseases, it may be rendered highly contagious, by crowding a number of patients into a small chamber, ill ventilated, filthy, and offensive. I believe that there are very few disorders which may not become contagious under such circumstances. In Rome, I have seen pulmonary consumption rendered infectious by the closeness of the sick chamber (for the air is always carefully excluded in this disease,) and the *damp heat* of the climate. The Romans all know this disease to be highly infectious; yet the assertion will appear monstrous in England. I have known repeated instances of persons going into a plague chamber, where the doors and windows have been kept closed, and the foulness of the atmosphere has been perceptible to the sense, exclaiming that their head was bursting with sudden pain, and they have gone home, and went abroad no more.

“I do not say that contagion is generated *only* in the close, ill ventilated chamber; but I say it is there augmented, in violence and virulence. Perhaps it may be inferred, that plague is therefore only communicated by the breath, and not by contact. I have reason to know it is communicated by both, in the instance of my own servant; he gave the disease to his brother by shaking hands, and the brother communicated it, through the atmosphere, to a lodger who casually entered the apartment for a moment, yet touched no person in it.

“In a close chamber, the woollen clothes (above all) become saturated with the contaminated air; and if persons who waited on the sick, entered without any other clothing than an oil-skin garment, sprinkled well with vinegar, the danger of infection would be diminished one half.

“In a word, plague under all circumstances is contagious, but under some, far more so than under others. In a well ventilated chamber, where the bed-clothes are shifted daily, where the floor is washed daily, and a fire kept constantly in the apartment (*this I consider the most important agent of all in carrying off the foul air*) there is hardly any peril in approaching the bed-side of the sick, avoiding his breath, and suffering no part of one's dress to touch the bed-clothes; but four feet from the bed of the plague patient, in an airy room, there is no danger whatever. The miasma, I have ascertained, by much observation, (so far as an invisible agent is amenable to observation or experience,) does not extend beyond a very few feet from its source; I would say, not four feet from the bedside, and then it becomes so diluted by the surrounding atmosphere as to prove innoxious.” 272.

Mr. M. never entered the Plague Hospital without having the doors and windows thrown open ten minutes previously. He also took two glasses of Cyprus wine, and while in the hospital continued to smoke a cigar or pipe. He strenuously cautions the physician against unnecessarily exposing himself to the contagion, by stooping over the sick, inhaling the patient's breath, and feeling the tumours and the pulse. Nothing is to be gained from these investigations.

Whether it be a casual coincidence or not that the commencement and termination of the plague correspond with the rise and fall of the Nile, Mr. M. does not pretend to determine—but such is the fact. The plague

commences in March, and declines at the Summer solstice—ceasing when the inundation is established—and beginning again when the lands have been drained.

“If I were to suffer myself to hazard a conjecture, it would be that the miasma, which produces plague, is not generated in those parts which are inundated by the Nile; that neither the inundation nor the draining off of the waters has any thing to do with the generation of the miasma; but that the peculiar condition of the atmosphere, which is produced by the changes of the Nile on the surface of the country, has a material influence on the development and dissipation of the miasma: in short, that the atmosphere is only the *medium* of the poisonous miasma which has its origin elsewhere.

“Both plague and malaria have their origin in putrefaction, exhaling an invisible vapour, which can only be estimated by its consequences. Malaria originates in the decomposition of vegetable matter. *Plague miasma, according to my opinion, originates in the putrefaction of animal matter.* The production of both, of course, depends on certain states of moisture and heat, which in other places of even a damper climate and a higher temperature, are wanting to the generation of these diseases.” 284.

It is curious that the Jewish quarter in Rome is the last assailed by malaria, while the Jewish quarters in the Levant are always the first affected by plague. In Turkish towns the filth is generally beyond conception—and, in our author's opinion, it is the pre-eminent accumulation of these immundities in Egypt and Turkey, aided by a certain disposition of the atmosphere, which confines the plague to these countries.

“In all Turkish towns, as well as those of Egypt, the narrow streets are never cleansed; there are no sewers, and the butchers kill their meat in the public streets: if the blood flow beyond the threshold of their door, they sweep it to their neighbours. Dead dogs, cats, and rats are constantly putrefying in the middle of the streets; and in the narrow lanes of Alexandria, I have seen the carrion of camels and asses lying in the thoroughfare, and contaminating the air of all the neighbourhood.

“If these causes, in the purlieus of St. Giles's and Covent Garden would be esteemed sufficient to generate the poison of typhus fever, and this disease is always to be found in summer in these places, how much more should the miasma, arising from animal putrefaction, be thought likely to produce the worst stage of typhus—the plague, in the burning streets of Cairo and Alexandria?” 286.

Our author is convinced that, however the miasma may be first produced, the disease which follows its introduction into the body, namely, the plague, “is slightly contagious under ordinary circumstances; but that, from want of ventilation and cleanliness, it becomes highly infectious”—that it never can exist for any length of time in a country where cleanliness prevails and a good police exists—that an over-rigorous quarantine, causing people to be confined to their houses, is the most likely way to continue the pestilence—but that wholesome sanitary laws, above all directed to the cleansing of sewers, &c. are highly beneficial, and ought never to be dispensed with—finally, that a stimulant mode of treatment should be adopted, when the disease occurs, and depletive measures avoided.

In a subsequent letter, our enterprising traveller has touched on the principal diseases of the East, which, besides the plague, are chiefly dysentery, ophthalmia, bilious remittent fever, ague, and acute inflammatory fever. On these he has made some excellent observations, and he has laid down a *code of hygiene*, for the guidance of oriental travellers which they would

do well to study. It is melancholy to contemplate the list of victims to an Eastern climate which a few years have presented. "Few weeks pass over without swelling the history of ill-starred enterprise with some new deaths to supersede the less recent obituary, in which are found the names of Bowden, Burckhard, and Belzoni." In lower Egypt Mr. Madden has seen three English medical men in two years "carried off by their own injudicious medication." Our traveller is a great advocate for temperance, nay, even abstemiousness, while undergoing fatigue in hot climates. The following passage is worthy of notice.

"When the traveller is actually *en route*, he should be more abstemious than usual; and whatever he eats should be of the plainest kind; when he halts for the night, he should repose a couple of hours before his meal, and it is only after sun-set he should indulge in his libations, albeit they consist in spring-water. He will observe that the Arabs in the Desert seldom or never drink during the day, and imitate in some sort the economy of their camels, in laying in a stock of water over night. When exposed to the burning sun of the Desert, the more a man drinks the more frequent his desire to allay his thirst; and the more peril he encounters from obstructing insensible perspiration.

"It is almost incredible on what a small quantity of food the Bedouins subsist. I found the ordinary allowance of a Bisharein Arab did not exceed twelve ounces a day of black bread and salt cheese, with a few dried dates; and there was hardly any disease amongst them. I never saw hardier people; their frames were slender, but their activity was surprising, and their fine black eyes sparkled with intelligence and animation. Had they lived in towns, they would have consumed four times as much food, and their infirmities would have been at least fourfold." 386.

Dysentery is a great scourge of European travellers in the East. Mr. Madden opened the bodies of seven English sailors who died of dysentery in Alexandria, and in almost every case there was disease of the liver, actual or incipient. The two principle modes of treatment are, copious and repeated bleeding—or mercurialisation. Mr. Madden had reason to prefer the latter.

"If any drug deserve the name of specific, calomel, in dysentery, has a title to it. I seldom gave less than twelve grains, thrice a day, and very often twenty. An effect once produced, on the salivary glands, the most urgent symptoms cease as if by magic." 392.

Ophthalmia was only to be subdued by large bleedings from the arm, repeated till every symptom of inflammation subsided.

The bilious remittent fever is the most formidable disease of all, and many are the European victims to its merciless virulence.

"Wherever vegetable and animal decomposition are going on, wherever date-trees are thickly clustered, wherever there is a saline incrustation on the soil, and a rank verdure in the vicinity, there that miasma is to be apprehended which produces bilious remittent fever. The distinguishing symptoms are, irritability of the stomach, oppression about that region, early delirium, and a lurid yellowness of the eyes; the subsequent symptoms are, vomiting of dark and viscid bile, fulness about the left side, intense head-ach, small rapid pulse, and often diarrhoea." 393.

The treatment, Mr. M. observes, must be active, for the fever runs its course in from three to seven days—rarely stretching out to twenty.

"The first measure should be blood-letting from fifteen to twenty ounces, repeated if

necessary next day, and the following, ten grains of calomel and one of opium three times a day, for four or five days, or till salivation is produced: every night six grains of James's powder, no emetics, but daily doses of castor oil or colocynth are necessary. When the fever runs very high and the skin is parched and burning, the body should be sponged with diluted vinegar. This treatment I have seldom seen fail, but where the inflammation of the irritable stomach, and the gorged liver is aggravated by bark, given in ignorance of the disease, death has generally ensued." 394.

But our limits are exceeded, and we must here take leave of our most enterprising, amusing, and intelligent traveller. We believe that very few will open these volumes without perusing them to the end, and that without *skipping* a single page. These "personal narratives," under the influence of Mr. Madden's pen, combine the interest excited by the romantic adventures of a Crusoe, with the deep researches of a Humboldt—divested of fabulous feeling on one hand, and *fatiguing science* on the other.

Mr. Madden has had an ample range of adventures, and has seen enough of foreign countries. We trust that our talented and courageous HACKIM will be in as great request in Bolton Row, as he was in the Harems of Stamboul, the pest-houses of Alexandria, the tents of the Bedouins, or the camps of the Pachas.

IV.

THE ANATOMY, PHYSIOLOGY, AND DISEASES OF THE TEETH. By Thomas Bell, F. R. S. F. L. S. &c. Lecturer on the Teeth at Guy's Hospital, &c. 1829. Highley.

[ART. I.]

WHEN we look at the BEAU IDEAL which Mr. Lawrence drew of the "ONE AND INDIVISIBLE," a few years ago, and compare it with the actual distracted, divided, and sub-divided state of medicine and surgery, we shall conclude that the talented Painter must have had his organ of IDEALITY strongly excited on that occasion. If physic and surgery be indivisible in themselves, or from each other, how is it that we see them split and splitting in all directions? The Profession appears like a congregation of various wild animals around a carrion. One pecks out the *eyes*; another the *teeth*; a third tugs at the *ears*; a fourth shows its predilection for the *skin*; a fifth, (of the true vulture species) gorges on the *liver*; a sixth drains the *gall-bladder*, and, like a generous *church-warden*, spirts its nauseous contents on his neighbours; a seventh makes a hearty meal on the *stomach*; an eighth prefers the *bladder*, and, strange to say, converts gravel into gold:—in short, there is scarcely an organ or structure of the human body, which does not furnish a PROFESSORSHIP in physic or surgery—down even to the *spine*, and the more crooked or carious this is, the more to the taste of the professor of *spinalogy*! The different parts of the body having thus been seized upon by distinct operatives, there is scarcely any thing left for the *pure* physician, the *pure* surgeon—nay, for the GENERAL PRACTITIONER himself! These three

classes are fast approaching the seventh age of Shakspeare, and are likely to be soon—

"Sans eyes, sans teeth, sans ears, sans every thing."

Various are the opinions as to the utility or inutility of these divisions and sub-divisions in practice, but it is evident that the public has already decided the question in their favour. This being the case we have only to hope that the different PROFESSORS will qualify themselves in *general* medical science and literature, before they devote themselves to particular branches of practice. The want of this has, in many instances, brought odium on the PROFESSORSHIPS; but is now in course of rectification. We apprehend that this "division of labour" in our art has not contributed much to unity of opinion among the artists—nor yet to liberality of sentiment towards each other. In the course of our editorial labours, we have learnt one caution at least—never to set an oculist, aurist, dentist, or other MONO-MEDICASTER (we beg pardon for the term) to the task of reviewing his neighbour's work. To do so would be to commit little less than literary homicide! The oculist would be sure to leave his brother oculist without an eye—the dentist would put it out of his neighbour's power hereafter to bite—while the aurist would deafen his collaborateur with censures loud and deep. It is on this account that, uninitiated as we are in the secrets of dental, aural, and ophthalmic surgery, we are forced on the task of reviewing these chef-d'œuvres of art, without the aid of the adepts. Fortunately, we deal but little in CRITICISM, and the operation of ANALYSIS is so much a matter of fact process, as to be carried on without the help of ARISTOTLE.

Mr. Bell has long been distinguished as an able practical dentist, and scientific lecturer on dental surgery. Having reputation to *lose* among his professional brethren, it is not likely that he would come before the public, as some authors do, in disguise. Mr. Bell has evidently endeavoured to construct a work of reference for the practitioner, and a text-book for the student, containing "a plain and practical digest of the information at present possessed on the subject—and the results of the author's own investigations and experience." The work being in great part an elementary one, is not a proper object for analysis—particularly the anatomical and physiological portions; but the second part of the volume, containing a description of the diseases of the teeth, the causes of these diseases and the methods of treatment, will furnish us with ample and useful materials for one, if not two articles in this Journal.

Two opposing doctrines have tended much to produce confusion and misunderstanding in the pathology of the teeth. One sect denied the organization of these bodies, and consequently denied their susceptibility to diseased conditions—the other party maintained the identity of the teeth with the bones, not only in their structure but in their diseases. The principle which Mr. Bell maintains in this work is that, although the structure of the teeth is similar to that of bone, yet the phenomena which the teeth display in disease, are so modified by the *lower grade of their organization*, and the less active condition of their living powers, as, in many cases, to exhibit characters essentially different from those which belong to the analogous diseases of bones. To these obvious causes of discrepancy, may be added, the uniform density of their substance—the absence of cancelli—the peculiarity of their situation, a part being exposed to internal causes of disease

protected only by a thin layer of inorganic matter. With these preliminary observations our author proceeds to dental diseases.

I.—GANGRENE OF THE TEETH, VULGARLY CALLED CARIES.

This is one of the most common dental diseases ; but the term is wrong, and calculated to mislead. The disease has not the slightest analogy to true caries of bone. Mr. B. proposes to substitute the term *gangrene*, a word expressing the real nature of the complaint.

" It usually attacks the crown of the tooth ; sometimes, though rarely the neck ; but I believe it scarcely ever makes its first appearance on the root. It invariably shews itself on the external surface of the bone, immediately underneath the enamel, and its existence is in many cases, first indicated by an opaque spot on that substance, occasioned by partial breaking down of its chrystalline structure ; in others, its presence is shewn by the discoloured bone being seen through the semi-transparency of the enamel. If at this stage of the disease the tooth be sawn through at that part, so as to intersect its centre, a brown mark will be found in the bone, immediately under the opaque spot of the enamel, extending more or less into the substance of the tooth, in a line tending directly towards the cavity ; it is darkest at the surface, where, from the disease having commenced at that part, its progress is more advanced, becoming gradually lighter towards the centre." 119.

The disease does not begin in the enamel, but the chrystalline structure of the latter is deranged by the want of support in the gangrened part beneath. The mortification insidiously increases, and destruction of the bone goes on in a central direction, the part becoming blackish and softened, till at last the enamel itself gives way, and discovers a cavity below. When the internal cavity of the tooth is either actually exposed, or covered only by a softened portion of the bone, inflammation spreads to the lining membrane, and produces what Burns emphatically calls that " hell o' a' disease" —the TOOTH-ACHE ! Thus portion after portion is destroyed, till the whole crown of the tooth is removed, and the roots only remain as dead extraneous matters in the sockets. In this state they often remain stationary for years, but in very irritable constitutions, a cold, a mercurial impregnation, indigestion, or some other cause, will occasion irritation in the socket, followed sometimes by abscess in the alveolus, caries of the bone, or tumours of various kinds—nay, by pains bearing a close resemblance to *tic douloureux*. In some people the decay takes place gradually and unaccompanied by pain.

" When the roots are, by the advance of gangrene, rendered mere extraneous bodies in the alveoli, three different actions are set up to effect their removal. In the first place, absorption of the alveoli and gums occurs to such an extent, as gradually to loosen the roots, by depriving them of their support. At the same time also, a deposition of bone takes place at the bottom of the socket, which, by degrees, forces the root into the substance of the gum, until it may often be seen lying horizontally, imbedded in that substance, without any attachment to the bone, or the slightest lodgment in the socket ; and in the third place, the roots themselves undergo absorption at their extremities, so that at length, a very small portion only is, in many cases found to remain." 122.

Causes of Dental Gangrene.—Hunter and Blake approached very near to the true etiology, but still, according to Mr. B. they fell short of the mark. The following is Mr. Bell's doctrine in a very few words.

"When, from cold or from any other cause, a tooth becomes inflamed, the part which suffers the most severely is unable, from its possessing comparatively but a small degree of vital power, to recover from the effects of inflammation; and mortification of that part is the consequence." 124.

That the bony structure of the tooth is *liable* to inflammation Mr. B. considers to be proved, not only by the identity of symptoms with those of osseous inflammation elsewhere, but by the fact, that distinct patches are often found in teeth, injected with the red particles of blood. The continued and invariable progress of dental gangrene is to be accounted for by the structure of the organ and the seat of the disease. When a portion of tooth is killed by inflammation, it excites an increased action in the vessels of the surrounding portion of bone; but the ratio of vitality here, being very low, the diseased part cannot be thrown off, as in other bones—hence the continued extension of the dental gangrene. The common supposition, that this gangrene may arise from merely external causes acting on the enamel is, Mr. B. observes, fallacious.

Predisposing and Remote Causes. Hereditary predisposition is the most common and the most remarkable among the *first* class. It often happens that this tendency exists either in the whole or great part of a family of children, where one of the parents had been similarly affected. Our author has often seen the very same tooth, and the same part of the tooth, affected in several individuals of the same family and about the same age. The whole list of infantile diseases, which occur during the formation of permanent teeth, are so many predisposing causes of dental gangrene—and not the diseases alone, but some of the remedies employed in their cure—as mercury, for example, injudiciously used. The strumous constitution is very liable to this disease.

Amongst the *remote* causes, or those which produce a deleterious change in the constitution of the teeth, subsequent to their formation, one of the most extensive, Mr. B. thinks, is mercury. But fevers of every kind, dyspepsies—in short, all constitutional disorders of any protracted continuance, must be classed amongst the remote causes of dental gangrene.

Exciting causes. Whatever tends to induce inflammation in the teeth may become an exciting cause. The most frequent are sudden vicissitudes of temperature, whether atmospheric, or from taking very hot or very cold substances into the mouth.

"As a general rule it may be observed, that whatever is placed in contact with the teeth, either so much higher or lower than the natural temperature of the body, as to produce pain, may probably prove to be the exciting cause of the disease; thus, drinking very hot fluids on the one hand, and, on the other, taking ice, without the precaution of preventing it from lying in contact with the teeth, are, I am convinced, fertile sources of disease in these organs. When the extremely dense, solid structure of the teeth is considered, it will not appear wonderful that this result should occur from change of temperature in a part, the unyielding nature of which precludes the possibility of expansion and contraction, not only in the vessels of its substance, but also in the membrane filling its cavity." 131.

The exposure of the bony structure of a tooth by the destruction of its enamel, whether the consequence of imperfect formation, accidental fracture, or the lateral pressure of the teeth against each other, is another exciting cause of dental gangrene by inflammation. The general notion, that one decaying tooth will communicate the disease to another, is, Mr. B. avers, erroneous. Mr. B. in the 10th vol. of the Med.-Chir. Transactions, has endeavoured to prove that "this is totally inconsistent with fact, with the chemical composition of the teeth, and with the cause of gangrene, as already explained." There can be no chemical agent, he observes, evolved in the destruction of one tooth, which can possibly occasion the decomposition of another. "Nor, as the bone of a perfect tooth is completely protected by the enamel, could any substance of an irritating nature (supposing such to be evolved) come in contact with the living portion of the sound tooth." This is a serious point of discrepancy among the "PROFESSORS OF DENTISTRY," and we wish they would settle it without sacrificing the grinders of the community at large. If Mr. Bell's doctrine be true, we are every day losing our teeth unnecessarily by extraction—if he be wrong, we shall lose them by the spread of the disease! About the following piece of advice there can be little difference of opinion.

"Whatever tends to irritate and inflame the gum, must in a greater or less degree produce a corresponding irritation in the teeth, from the close connexion which subsists between them; and hence the accumulation of tartar, portions of food remaining between the teeth, or any similar circumstance, may possibly become an exciting cause of gangrene; and this, not only by means of inflammation propagated through the gum, but also by the exposure of the necks of the teeth to external agents, in consequence of the absorption of the gum and alveolar processes. The necessity of keeping the teeth in a constant state of cleanliness, and freedom from all extraneous substances, will be particularly insisted upon in another place, but deserves to be alluded to here, as a means of preventing the occurrence of gangrene from the causes just mentioned." 135.

Precautions against Dental Gangrene. Under this head our author has laid down many rules, which are, no doubt, judicious. In the first place, fluids should never be taken into the mouth either so hot or so cold as to produce pain. In the second place, when any inflammation is set up in a tooth, it should be immediately reduced by the application of leeches to the gum, as near as possible to the part in pain. This should be repeated, and the bleeding encouraged by holding warm water in the mouth.

"When, from the want of room in the maxillary arch, the teeth are so crowded as to press with considerable force against each other, this pressure should be removed, by passing a very thin file between those which are, in the greatest degree, subjected to it. These will generally be the incisores. As a very small portion only will be required to be removed, the file should be as thin as possible, and exceedingly fine. It is of the utmost consequence that the whole thickness of the enamel should not be taken away from either of the teeth between which the file is passed, but that a perfect covering of this substance should still be preserved, to protect the bone from external agents; and it is never to be forgotten that this operation is only to be had recourse to, as the least of two evils, and therefore requires care and judgment in deciding upon the propriety of its adoption. In the mode of its application also, care must be taken that the force used shall be so regular and moderate, as not to risk the chipping off or fracturing of the enamel. Should a bicuspid, or even a molar tooth be already considerably diseased, it will, in many cases, be sufficient to remove it; for, by degrees, the other teeth will tend towards the vacancy, so as to take off their mutual pressure upon each other, and thus obviate the necessity of filing." 137.

Treatment of Dental Gangrene. When Gangrene has actually occurred in a tooth, it is very probable that the progress is not to be stopped by art. In the earliest stage, where the only indication of the disease is an opaque or darkish spot on the enamel, and before the subjacent bone has become softened, a careful removal of the diseased spot should, if possible, be effected. By this procedure, the exciting cause of irritation is withdrawn. The excision should be confined to the dead portion. The file is a dangerous instrument, as it cannot be restricted to the decayed part, but must necessarily remove a portion of sound tooth. Yet it is the only instrument which, at an early period of the disease, and where the enamel is not weakened by softening down the bone beneath, can effect the purpose. It must, therefore, be worked with great caution. If the bone be still very hard, it should be taken away by strong steel brooches, having three sided points, and being of various sizes.

Filling the Cavity produced by Gangrene. This operation is often necessary, to exclude the external causes of the original disease—and, when carefully performed, it is, in many cases, perfectly effectual in arresting the further progress of the malady.

“The substance best adapted for this purpose is pure gold, both on account of its ductility and the toughness of its texture, and, more particularly, because it is not liable to become oxydized. Tin and silver are frequently used, but they combine too readily with oxygen to be sufficiently durable. Lead is still more objectionable, as its salts are readily soluble in the saliva; and where many teeth have been filled with it, particularly if the decay is extensive, and there is consequently a considerable surface of the metal exposed to the action of that solvent, the stomach may probably become materially disordered by it. Platina is free from these objections, but, in addition to its being usually alloyed to render it malleable, it is less tough and ductile than gold. Metallic compounds, fusible at a very slight degree of heat, have been recommended, and are now used, not only on the continent, but in some instances in this country. These are decidedly objectionable, not only for the reasons already given for rejecting other oxydizable metals, but also from the very imperfect manner in which the metal runs into the inequalities of the cavity, and the inadequate protection which it consequently affords.

“The gold should be beaten very thin for small cavities, and rather thicker for larger ones, but in no case should it be so thick as not to be easily pressed into any form, and forced into all the irregularities of the cavity. It should also be thoroughly annealed after it is beaten to the proper thickness, in order to deprive it of the elasticity which it had received from the hammer.

“A sufficient quantity of gold is to be taken in one piece to complete the stopping of each tooth; for if too small a piece be used at first, and the deficiency be supplied by a second, the latter will be liable to be removed by the food in mastication. The gold is to be forced by degrees into the tooth, taking care that the first portion is placed in contact with the bottom of the cavity, and that every succeeding portion is firmly pressed against that which preceded it, so that every irregularity of the excavation shall be filled. If this be not attended to, and the whole of the gold be carelessly and slightly pressed into the cavity, and the degree of force necessary to its complete consolidation be afterwards given to the whole mass at once, it will often happen that the gold forms a hard solid body at the orifice, and a short space within it; whilst the bottom of the cavity is left wholly unprotected. The gold is therefore to be gradually and firmly introduced into the cavity, every portion receiving the degree of force necessary to its consolidation, until the tooth is completely filled, and the gold forms a hard, unyielding, and continuous mass. Any

superfluous metal is then to be cut off, and the surface polished with a little steel burnisher." 146.

We shall not enter into a description of the various instruments necessary for this operation. Mr. Bell has given Mr. Koecker a sly rub about the number which the latter employs—but this we shall pass. Mr. B. remarks that it is not uncommon for dentists to fill teeth, where the bone has become softened to such an extent as to occasion pain on being pressed, and where the total removal of the decay would expose the membrane of the tooth. In these cases the dead bone is forced into contact with the membrane, or the gold is pressed upon the naked nerve. In both cases, the effect is the same. Inflammation and great suffering are generally the result. These sufferings may sometimes be obviated by removing the stopping, and introducing a solution of the nitrate of silver by means of a camel's hair pencil, the cavity having been previously cleaned and dried. If the inflammation has continued till the periosteum is thickened and matter has begun to form, the tooth must be extracted. As a general rule, the hollow of a tooth should never be filled at a time when pressure of the gold occasions that peculiar pain arising from contact with the membrane.

The actual cautery, sulphuric acid, and other corrosive caustics, have been employed to destroy the nerve of the tooth; but they are all objected to by Mr. Bell. The best application, for the purpose of obtunding the sensibility of the membrane or promoting its absorption, is alcohol, or solution of nitrate of silver. Camphorated alcohol is preferred by our author. The sensibility obtunding the process of stopping may be resorted to.

TOOTH-ACHE. This is one of the most excruciating pains to which humanity is liable. The sensation is *sui generis*—scarcely is *tic douloureux* more agonizing. The sympathetic affections to which it gives rise are very numerous. The pain often *appears* to be seated in parts remote, as the face, scalp, ear, jaw, neck, shoulder, and even along the whole arm. That of the ear, however, is the most common of the sympathetic pains, from exposure of the nerve supplying the inferior dens sapientiæ. Cases of idiopathic ear-ach are comparatively rare. There are few applications of much use in this distressing malady. "The following are perhaps the most useful."

- "R. Aluminis, ʒi.
Spir. Æther. Nitrici f ʒss. Misce.
- "R. Acid Muriat. f ʒss.
Aquæ distillatæ f ʒij. Misce.
- "R. Argenti Nitrat. gr. i.
Aquæ distillatæ f ʒi. Misce.

"A small bit of lint, wetted with either of these liquids, may be frequently introduced into the cavity, which should be carefully dried previous to each application.

"It is however only by treating this affection, as nearly as the circumstances will admit, upon the same principles as inflammation in other parts, that any relief can, in general, be rationally expected. In those attacks therefore in which the inflammation is considerable, and there is any particular reason for preserving the tooth, leeches should be freely and repeatedly applied to the gum, the bleeding being encouraged by repeatedly holding warm water in the mouth. After the inflammation and pain are thus reduced, should the nerve be only in a small part exposed, the means already mentioned for diminishing its

sensibility may be had recourse to. But the hope of relief which these remedies may, from occasional success, hold out, is in most instances completely fallacious, and the extraction of the tooth can alone be depended upon." 157.

The operation of excising the crown of the tooth, as practised by Mr. Fay, is reprobated by our author in the strongest terms, as attended, to his knowledge, with injurious, nay, even fatal consequences. "It is an operation irrational in its principle, often useless in its immediate effects, and in its consequences most pernicious."

"It has always appeared to me to place the operator in a dilemma of evils. The object, I presume, is to cut through, or, more properly, to break off the tooth so low as to remove the whole of the crown, including the cavity which contains the pulp or membrane. If this object be effected, the consequence is, that the dead roots remain in the alveoli; and these, if not immediately productive of pain, may yet be expected to occasion much future suffering as extraneous irritating bodies. Every one knows what is the usual result of the existence of dead roots in the jaw, when they have been left either by accident in an attempt at extraction, or by the gradual decay of the crown; and it is surely too much to adopt as an useful operation, that which every one deprecates as an accidental occurrence.

"If, on the other hand,—as indeed it frequently happens,—the object aimed at be not fulfilled, the case is placed in a situation incomparably worse than before, the nerve being still more exposed, and the hope of the ready and easy extraction taken away by the loss of that part of the tooth which would have afforded a solid support for the instrument." 159.

Total Necrosis of the Teeth. The causes of this state are various. A blow sufficiently forcible to break the vessels entering the foramen of the root—inflammation occasioning separation of the internal membrane—fever—the immoderate use of mercury—and many other causes, may produce total dental necrosis. The incisores or cuspidati are the teeth most subject to the disease. When the tooth has been sometime dead, it begins to assume a darkish colour, which gradually increases to black. Mean time inflammation takes place in the socket—the gum becomes spongy—and there is a constant discharge of matter through one or more openings opposite the root. Next come on absorption of the alveolar process, and loosening of the tooth.

"In the earlier stages of necrosis, free and repeated scarification of the gum, followed by the application of a strong astringent lotion, will be found very beneficial; I have also employed the injection of a solution of sulphate of zinc underneath the gum into the enlarged alveolus, by means of the extremely fine tube of a syringe, with much advantage in checking the formation of pus, and giving tone to the gums. It is however obvious that when an extraneous body, like this, exists in the socket, nothing short of its removal can effect a cure." 167.

Attempts to cure tooth-ache by extracting the tooth and then replacing it, bring on a state precisely similar to the above. Mr. Fox, who first proposed this procedure, candidly acknowledged its entire failure. The transplanting of teeth is deprecated by Mr. Bell, and is, we should think, now entirely given up, after the dreadful consequences which are known to have resulted from it.

Exostosis of the Teeth. A deposit of bone occasionally takes place on the root of a tooth precisely similar to exostosis in other bones. The new substance is of a particularly hard dense texture, of a yellowish transparent hue. It is occasioned by an increased and irregular action of the vessels—a kind of chronic inflammation, the result, in most instances, of incipient gangrene.

“Hence its progress is so tardy, that, in most instances, the enlargement of the alveolus by absorption, almost keeps pace with the deposition of new bone; and the pressure which the latter produces is so trifling and gradual, as to occasion no more than a slight, though continued uneasiness; and it is only when the caries has extended to the cavity, and tooth-ache is produced by the exposure of the membrane, that the patient is induced to lose the tooth, and that the true cause of the previous affection is ascertained. In other instances the continued irritation occasions thickening of the periosteum, and afterwards suppuration, and the case becomes one of simple alveolar abscess.” 174.

The pressure arising from this enlargement of the root sometimes produces an affection resembling *tic douloureux*. The following case is important, as it shows how small an exostosis will produce the most painful symptoms.

“Mr. ——— had for some months suffered severe and frequent paroxysms of pain on the left side of the face, apparently commencing in the second inferior bicuspid, and the darting through the lower jaw to the ear, and upwards to the temple. The pain resembled *tic douloureux* in the nature of its attacks, but was evidently produced by a local rather than a constitutional cause, from the paroxysms occurring without the least periodical regularity, and from their being excited by the application of heat to the teeth of that part. On the most careful examination, however, I could not discover the least appearance of caries in any of the teeth, and I therefore ordered leeches to be applied to the gum, and directed aperient medicines and abstinence from all stimulating food. This plan was productive only of temporary and partial relief, and in about two days the pain was as severe as ever. Finding that a smart blow on the second bicuspid produced a more painful sensation than on any other tooth, I determined on extracting it, and found the extremity enlarged by a deposition of bone, giving to it a slightly bulbous shape, but not larger than the tip of a small quill. The newly added bone was yellower and more transparent than the original structure, as is generally the case in this disease. The removal of the tooth was followed by immediate and entire relief.” 176.

Here we shall close our first article. In our next paper we shall proceed with various other diseases of the teeth. This short analysis will demonstrate to the general practitioner, as well as to the professed dentist, the importance and the value of Mr. Bell's book, which we can conscientiously recommend to all classes of our readers.

V.

PATHOLOGICAL OBSERVATIONS, PART II, ON CONTINUED FEVER, AGUE, TIC DOULOUREUX, MEASLES, SMALL POX, AND DROPSY, &c. ; WITH A PRELIMINARY DISSERTATION ON THE INSTITUTES OF MEDICINE.
By *William Stoker M. D., &c.* Dublin, 1829.

DR. STOKER has been so long known to the medical world, that neither he nor his works require any formal introduction. His rank and length of service, as a public officer, in one of the largest establishments for disease in the British Empire, and his various writings upon various subjects have obtained for him an honourable and well-merited notoriety. His pathological labours, in particular, have excited considerable notice, and the efforts which he has made to re-establish the old, and nearly obsolete doctrines of the Boërhaavian school, have characterised him as an original and reflecting physician. These efforts, however, seem hitherto to have been more highly estimated upon the Continent than with us,—in Germany especially, they have partially succeeded; yet, although the school of Cullen is still strong, he who attentively observes the signs of the times, cannot fail to perceive that the influence of the Scotch Nosologist is considerably on the wane.

That the humoral pathology ought never to *preside* in medicine we are convinced; that it never shall again, we believe; but we have ever thought, and do still think, that the doctrines of Solidism have cast it too far back, into *unmerited* neglect, and that while it must be admitted that brain, and bone, and every other solid texture of the body have diseases peculiar to themselves, apart from the fluids, it would be more than difficult to prove that the latter are entirely exempt from derangement. How far this derangement may obtain, and how frequently it may occur, are questions more easily started than replied to; for he, who feels it no task to expose the ravings of Bontekoe, may have some trouble in establishing the utter groundlessness of principles, which he has extravagantly over-rated and foolishly misapplied. Certain it is that, however beneficial Solidism has been to the general advancement of medical science, it has unquestionably led us into a most unwarrantable neglect, as to the chemistry of healthy and diseased animal fluids. Were Dr. Stoker's writings, therefore, of no other use than to rectify us upon this point, they would be valuable; and since pathology is the *spoiled child* of the day, we trust that more attention shall hereafter be devoted to the alterations, whether primary or secondary, occasioned by disease within the humoral department of our system, and that a portion of the labour which is now spent, perhaps wasted in delineating the most shadowy aberrations of the solids from healthy structure, will henceforward be given to the study of humoral pathology.

It would be both pleasing and profitable to enter into the Doctor's entire system, and endeavour to ascertain how far it is applicable to the present state of disease; but as this is an undertaking too extensive for our pages, we must restrict our review, *pro tempore*, to a single branch of the subject. Without therefore, noticing at greater length the *Preliminary Dissertation on the Institutes of Medicine* which prefaces the *Medical Report*, we

shall at once take up the report itself, and examine with some attention the applicability of the doctrines developed in the Dissertation to the nature and treatment of *Fever*.

It appears that from the year 1804 to the close of 1827, fever had been increasing both in extent and severity in the Irish metropolis; that, in 1828, it very remarkably declined; and that during all this period, disease and crime were strikingly proportional. In 1804 the number of fever cases received into the Cork Street Hospital was only 415; in 1810 the admissions increased to 1774; in 1815 to 3789; in 1818 to 7608; in 1827 to 6544; and in 1828 they fell to 2964; so that the proportion between the admissions of 1804 and 1827 is nearly as 1 to 16, or, holding the tables out of which these results are taken to be correct, and the Cork Street Hospital to be a fair criterion whereby to judge of the state of fever in Dublin, this disease has in the short space of twenty-three years multiplied sixteen fold in that city. But when we are informed that the Cork Street Hospital was the only asylum for fever in Dublin in 1804, and that in consequence of its increasing prevalence, similar Hospitals were subsequently erected, the above *status* must fall considerably short of the truth, seeing that the registry of Cork Street is descriptive of the state of fever in only one section of the town. The causes of such an alarming multiplication of disease, in so short a period and over so limited a space, constitutes a very interesting subject of inquiry, and the researches of the author have certainly furnished us with a partial explanation. From 1804 to 1818 the condition of the poor, in many parts of Ireland, was unmixed wretchedness. Destitute of the necessities of life, they became weak and enervated; dispirited by the miseries which surrounded them, every habit of cleanliness and order was neglected; filth and famine thus conspired to the propagation of disease, and constitutions enfeebled by misery and want became easy victims to a malady whose favourite haunt is the hovels of the destitute. To such a state of things may partly be ascribed the gradual spread of fever during the first fourteen years of the above period of increase; but it is more difficult to ascertain the reason why, in the years 1818—26 and 27, this *modicus passus* should have been so largely over-stepped. By many it was ascribed to the increased activity of contagion, and by some to a peculiar condition of the atmosphere; while others rested satisfied with the general causes above given. We have many reasons, however, for believing that the epidemic, which prevailed in Ireland in 1818, was a very different disease from common continued fever, as well in its symptoms and course, as treatment and terminations. It prevailed almost exclusively among the poor, for when found among the rich it could generally be traced to some hovel in the neighbourhood, symptoms of extreme debility marked its progress, the remedies most effectual for its relief were nourishing diet and moderate stimuli, the appetite, in place of being lost, was frequently voracious, the skin was cool, the thirst was moderate, and scarcely any thing like genuine febrile phenomena were perceptible. The disease, in fact, was rather negative than positive; induced by hunger it was cured by diet, and propagated by filth it was alleviated by cleanliness. The countenance was care-worn and haggard, the surface pale and parched, the entire body nerveless and emaciated, and the lower extremities very frequently œdematous. The spirits were sunk, the pulse was feeble, the strength was tottering, the appetite was keen. If timely attention were obtained these *negative symp-*

toms soon vanished under the use of a judicious regimen, and no unusual sequelæ to their course, when they had been long neglected, was general anasarca or some local dropsy.

It must be obvious, therefore, to any one who attentively compares, or rather contrasts these morbid phenomena with those peculiar to specific fever, that much of what has been called the *low typhus* and *epidemic fever* of Ireland merits no such appellations, that in its symptoms, progress and treatment it is essentially different, and that, arising from want and wretchedness, it called for less therapeutical than dietetical treatment. In this way it is possible to account for the exceeding prevalence of what has been styled fever in Dublin, and also for the Brunonian views with which many of her physicians have been so deeply inoculated. To bleed in such a disease would undoubtedly be death, to purge even would be dangerous, perhaps fatal. If we could believe that ever John Brown's system was calculated for good it would be here, yet even in such cases we should look with more confidence to the *Cook's Oracle* than to the *Novum Systema*. But let us not be misunderstood;—while we believe that starvation has been not unfrequently the cause of disease and the disease itself, it is unquestionable that genuine fever is often produced and propagated by want, and that the peculiarities of the producing cause are worn by the disease produced. Hence may it be possible for an experienced eye to discover the nature of the cause in the character of the symptoms, to distinguish fever arising from contagion from fever produced by malaria, and thus not merely to ascertain the origin, but to predict the progress and to regulate the treatment by an attentive study of the physical signs of the disease. In this point it gives us pleasure to be supported by Dr. Stoker.—

"The distinctness of the symptoms arising from distinct causes of Fever, may be further illustrated by the fact, that the nurse-tenders of the Hospital, on receiving successive patients, and in contagious Fever, from the same family are able, by describing the preceding cases, accurately to foretel a similar train of symptoms. Of the distinct natures of Fever from contagion, and from malaria, another illustration is afforded by the preceding Table. It may be perceived, that in those years when from contagion Typhus Fever was most prevalent, agues were little or not all known; whilst in other years, as in 1809 and 1828—in which the subsidence of continued Fever was most remarkable—the frequency of intermittents was also most remarkable. I am the more desirous to dwell on these distinctions, from being persuaded that the great discrepancy of opinion which has for some time existed among the Physicians of Great Britain and Ireland, on the subject of contagion and malaria, has arisen chiefly from want of due attention to the effects of those agents separately, and also from confounding them with those from other causes. To that confusion, probably, may be attributed the many pernicious mistakes which have taken place, both in devising means of prevention and in prescribing modes of treatment for febrile diseases." 19.

It appears to the Doctor, that the type of continued fever has of late years been very considerably changed; and that that clause of Cullen's definitions "*paroxysmis quovis die binis*," is by no means so expressively correct at present as when it was written; that, in short, fever is a more *continued* disease now than it was formerly. In this remark we entirely concur. When we look into the works of Mead, Huxham, Sydenham, and even more modern authors, scarcely any thing which can be called, in strict language, CONTINUED FEVER, is to be met with. The morning and evening exacerbations are laid down as two diurnal epochs of constant and

leading importance; the intermediate time, if not apyrexial, is to be considered as occupied by symptoms comparatively mild; and much of the description would seem more expressive of remittent than continued fever. Now, however, we have the author's testimony that such is not the present type in Dublin; and, in London, we can bear witness to the very rare occurrence of remittent fever, and to the very imperfect and often imperceptible remissions which are supposed to occur in continued fever. The cause of this modified constitution is obscure, but it is probable that the great decrease of malaria, which a more enlightened husbandry and more effectual drainage have produced, may have partly occasioned it; and that an increasingly crowded population, attended, as it ever is, with filth and poverty, may have increased the virulence of contagious poison, by which the febrile type has degenerated into a more confirmed character. It is certain that such cases as are traceable to contagion are much more uniformly severe than those which have originated from malaria; that the typhous state appears earlier and is more developed; that the disease, in place of being regularly checkered by periodical alternations of relief, is, as it were, one continued exacerbation; that the proportion of nervous to inflammatory symptoms is much increased; and the chances of a rapid or even ultimate recovery are materially diminished. These facts are of great weight and should never be lost sight of in the treatment of this disease; for, if properly understood, they will form a most useful guide to the choice, application and continuance of our remedies. All generalizations in medicine are dangerous, because they depend upon combinations which may be hourly unhinged; but were we inclined to hazard one, we should say that continued fever, arising from what is popularly called contagion, and continued fever generated by vegetable malaria, are two very different forms of the same disease; and not more different in their constitution than they should be in their treatment. Continued fever, arising from the latter cause, (malaria,) is the connecting link between remittent fever (if there be such a fever in cold climates) and continued fever arising from the former cause (contagion.) There is difference enough in nature for establishing this distinction; and the practical tendency of the distinction is very obvious. This difference is, to an experienced observer, generally perceptible, and often striking; and we could shew, by many examples, that a fever, which *proximately* arises from contagion, but *remotely* from malaria, and *a fortiori* a fever originating *directly* from malaria, wears in general a milder character than such as, first and last, proceeds from contagion alone; so that the type of fever being thus moulded by its cause, we may have every variety of shade from synocha to typhus gravior, according as contagion and malaria operate separately, or in different doses of admixture.

These observations will partly account for the distracted state of the public creed as to the nature of fever, and for the opposing systems which are daily issuing from the press respecting its treatment. As the subject at present stands, we hold it to be nearly impossible for the medical tyro, who knows nothing of this class of diseases from actual observation, to acquire any thing like a proper knowledge of it from books. There are nearly as many schools of fever as there are of theology; and he, who comes out charged with the doxy of one school, comes out as bigoted to his system and as prejudiced against those of his neighbours as was ever any re-

ligionist, who believed salvation to be circumscribed within the limits of his own church. FEVER is nothing but debility, teaches one school; FEVER is nothing but inflammation, inculcates another; FEVER is a morbid state of the brain, says one theorist; FEVER is a morbid state of the intestines, says another; one is giving wine while another is drawing blood; and some, (who will be considered by many as by no means the least rational,) either disgusted by such empiricism, or deterred by such opposition, leave Nature to herself, declining to interfere with a disease, which can either be cured by every mode of treatment, or can resist the bad effects of all. One epidemic is regarded as sufficient *materiel* for observation for one author; and the principles and practice, which he found adapted to it, he incautiously extends to all; another epidemic appears of so different a type, that neither these principles nor this practice will apply;—a new theory is manufactured to explain new appearances; new indications of treatment are laid down; and the old system is discarded as unfounded and deceitful! Facts geographically local, and deductions essentially partial, are thus installed into the rank of general and abstract truths;—a few meagre features gathered out of one year's epidemic, are spread over canvass large enough for an entire portrait; and what a cautious philosophy would still have held and taught as local facts and partial inferences, inexperienced presumption generalizes into dogmata, which are all and always to be indiscriminately applied. Such an untamed spirit of generalization should be reprobated wherever it appears. It has been the upas-tree of medicine, which neither bears wholesome fruit itself, nor permits any thing to flourish within its influence;—the dead weight of our profession, under which she has groaned for so many centuries.

“Common epidemic fever, especially when contagious, as I have frequently asserted when speaking of its pathology and treatment, has not appeared to me at any time to be essentially inflammatory.”

Such a statement as this is legitimate, because it is strictly personal; and had Dr. Stoker rested satisfied with publishing the result of his *own* experience, attention and respect would have constituted our duty. But, anxious to see the fever of London wearing the same physiognomy, and belonging to the same family with that of the Irish metropolis, we are favoured with the following passage:—

“The peculiarities of the indigenous Typhus Fever of this city, when compared with the forms under which epidemics have been described formerly in this country, or even more recently in Great Britain, would, however, in no circumstances appear more remarkable, than with respect to the temperature of the bodies of patients labouring under common Fever. For, I have found, that in a large proportion of the cases of unmixed Typhus Fever, that I have met with, the temperature of the surface of the body, was generally rather under than over the natural standard. This circumstance of diminished temperature was adverted to by Dr. Bateman to demonstrate the remarkable difference in the character of the epidemic he described, when compared with the Fevers treated by Dr. Currie; and I regret, that from various causes, I cannot show by reports kept in former years, the thermometrical admeasurement of the temperature of the skin, in the most exquisite form of Typhus Fever, as I am of opinion it would not only prove the great difference in their nature from those treated by Dr. Currie, or even by Mr. Bateman himself, but also why cold affusion has not been at any time found so beneficial in our hospital, as it was stated to be in Dr. Currie's Reports of that Remedy. Under the head of cold or tepid affusion, as ranged amongst the remedies for Fever in the succeeding pages, a Table may be seen of the temperature, in 34 cases of Fever.

"From later publications, however, on the epidemic Fevers of London, it would appear, that the differences between its characteristics there, and those we have been describing here for so many years, are not now so great as when Dr. Bateman wrote his succinct account; for, not only greater similarity than formerly appears between the symptoms and treatment, but also a greater proximity in our views of the pathology of Fever, as described in recent publications, compared with the descriptions of the 'epidemic by the Irish writers.' The same essential denominations also founded on the same pathological views are employed, though apparently unawares, if that is to be inferred from the total silence kept respecting any precedent for their adoption. But, however accidental this want of recognition might have been on the other side of the channel, it is surely lawful to claim our '*disjecta membra*;' with respect to Adynamic Fever more particularly, a denomination for Typhus Fever, which I shall employ, as I have hitherto done to express not only 'the putrid or malignant Fever of Sydenham; the slow nervous Fever of Huxham; the nervous Fever of common language: the synochus, typhus mitior and gravior, of Cullen; the jail and hospital Fever; the *fièvres essentielles* of the French; the epidemic of the Irish writers; the contagious of Bateman; the typhus of Dr. Armstrong; and the proper idiopathic, or essential Fever of Dr. Clutterbuck.' Whether it exists separately and independently; or is combined with any of the other forms of febrile disease, sporadic or symptomatic. 35.

What, or who these *disjecta membra* are, we feel some difficulty in imagining. Certain it is that neither Bateman, nor Armstrong, nor Clutterbuck, nor Wilson Philip are entitled to a place among them, and although some kindred may be claimed by Dr. Stoker with Dr. Burne, the "TREATISE ON ADYNAMIC FEVER" is nothing but a description of *one form* of the disease, and as far as we know, has been regarded by very few in any other light; and were we called upon to select one of the most flagrant breaches of nosological accuracy with which we are acquainted, the concluding part of the above quotation should be fixed upon.* It would not be less philosophic nor practical, we maintain, to group into one description, and to subject to the same treatment, every species of inflammation, whether phlegmonoid, rheumatic, arthritic, scrofulous, puerperal, or erysipelatous, than to identify the disease described by Clutterbuck with the typhus gravior of Cullen, or to lay down curative indications for the management of Bateman's fever, which would equally apply to that of Sydenham. If debility be the characteristic of fever in Dublin, it is certainly not so in London, for the lancet is, perhaps, more freely and more favourably employed here, in the present day, than it was in those of Bateman: and it is a fact, which is not more singular than true, and which the author's assertion leaves us in some difficulty to account for, that the Irish who are in London, are just that class of patients who require and withstand the most active measures. We believe they are the strongest *birds of passage* which we have. Robust in body and spirited in mind, unrelaxed by luxury and hardened by exercise, disease of whatever kind readily assumes in them an active character, and, in fever, during the stage of excitement, their organs are obnoxious to an unusual proportion of inflammatory attacks. Why

* We are sorry to say that grammar, as well as nosology, is violated. We beg Dr. Stoker to look at the last sentence, between the period after the word "CLUTTERBUCK," and the period after "SYMPTOMATIC," and say what is its meaning, or by what grammatical rule it is constructed.—Ed.

there should exist such a difference between the Irish constitution in London and Dublin, as that, during the self-same disease, it must be supported by wine in the one metropolis, and reduced by bleeding in the other, Dr. Stoker may, probably, but we cannot explain.

Let the Doctor, therefore, not be deceived by imagining, nor deceive others by asserting, that the London fever has so far degenerated as to require bark and wine in place of bleeding and purgatives; for we can assure him, and we speak advisedly, that Bateman's "Succinct Account" is almost, if not altogether, as applicable to 1829 as it was to 1818; and that those few among us, who may think otherwise, are either the remaining children of the old school, or have been educated in the new under unfavourable circumstances. We even feel a violent inclination to suspect from the writings of Dr. Mills and others, that Bateman could yet be read with some advantage in Dublin; that Armstrong might yet practice among its inhabitants without much danger; and that the degeneration, which our practice now and our politics lately have been taxed with, is not much more extensive among ourselves than among our neighbours. Dr. Stoker is, however, an experienced and observing physician, and we shall proceed to present our readers with a condensed abstract of his views on the more important points of this interesting subject.

After dividing all fevers into inflammatory, typhoid and intermittent, and noticing his intention to "arrange the cases of inflammatory fever under the head of symptomatic fever; and those of continued, or simple fever, under the heads of synochus, typhus mitior, or mixed fever, and, lastly, of typhus gravior," he makes a few remarks upon the symptoms and treatment of continued inflammatory fever, which contain no particular information; adds three cases of gastritis, hepatitis and pneumonia, by way of illustration, relates the appearances on dissection of two horses which died of inflammation in the chest, as a link to connect inflammatory with typhoid fevers," and then passes on to the consideration of his second class.

"I consider typhoid or adynamic Fever to be generally symptomatic of morbid changes in the physical characters of the blood, and have as on former occasions, stated what those morbid changes are, viz. 'the crassamentum is dissolved, or broken into fragments, tinging the serum with its colour, which is sometimes of a very dark brown, and sometimes of a greenish hue;' but I have arranged inflammation under the head of symptomatic Fever, merely because it is more usually connected with some change in the structure of parts, discoverable after death; on the other hand, typhus Fever is connected with morbid changes, that primarily take place in the fluids, and produce morbid actions, and sometimes permanent changes of structure in the solid parts. These changes too, in the condition of the blood are distinguishable from those which we have stated to occur in inflammation; and the morbid actions excited relatively by these changes in the blood, are also distinct. In inflammatory Fever on the one hand, increased action; in typhoid Fevers on the other, debility, is almost the immediate consequence. On account of this debility being an essential character of typhoid Fevers, I denominated them adynamic.

"The following cases of typhoid Fever will be arranged under the separate heads of synochus or mixed Fever, typhus mitior, and typhus gravior—to the various degrees of which, simple Fever may be said to bear the same relation that *cynanche tonsillaris* does to *cynanche maligna—variola mitis et distincta to variola confusens et maligna—or diarrhœa simplex to dysenteria typhoidea.*" 74

A knowledge of the seat of fever involves much that may be known of its nature; and, therefore, we have, on the appearance of almost every

new work, to canvass the merits of a new theory. But of the various solutions of this question which have been proposed, none has met with more advocates than that which is derived from the Humoral pathology; and it is undoubted, that few can more easily, or more effectually illustrate the complicated phenomena of this disease. We do regard it, however, as premature to advance and advocate any theory of fever grounded upon this system. Our acquaintance with the animal fluids is exceedingly imperfect; their constitution, even in a state of health, is unsatisfactorily made out; and the chemical alterations, which they suffer by disease, are almost entirely unknown. More especially in fever does this remark hold good; for, although there is not a single secretion in the system which is not soon and seriously disordered, not a single secretion has been analysed with any chemical accuracy. How then, do we ask, can any experimental philosopher, pretending to any share of science, fabricate principles out of such uncertain materials, and upon these principles ingraft a practice, to which the lives of thousands are to be subjected? Such *kite-flying* is unworthy a genuine friend of the profession, and, without making any specific reference to the author who now happens to be before us, would we earnestly recommend every son of poetry and romance in medicine, if he must write, to give his speculations to the world in a separate form, unmixed with practical advice, and under some such honest title as *Raw Material*; that the reader may select, according to his own taste, facts or fancies, the chivalries of romance, or the calculations of reason. Were some such plan as this adopted, medicine might travel onward to the dignity of science, and, at all events, our libraries might be ultimately extricated out of their present confusion, and beneficially arranged into *poetry* and *prose*.

The water transpired by the skin and exhaled by the lungs, the urine and the bile, the secretions of the mouth and the excretions of the intestines, are equally changed in quantity and quality; and, while such alterations appear natural succedanea to a diseased condition of the blood, we have not one fact to prove, not one foundation-stone whereon to build the assertion, that the blood is the *una sedes et sola morbi*. By admitting, as we have done above, that the humoral pathology when applied to fever can account for many of its phenomena, we must be understood, therefore, to speak *comparatively*; for it is our present conviction, but which for the reasons already given we mean not to dignify with the formalities of a propounded theory, that the febrile poison, whatever it may be and wherever it may come from, acts primarily and principally upon the nervous system, and that the blood is, perhaps, the second animal constituent which is brought under its operation. This view is strongly supported by a host of facts, some of which only it will in the present place be necessary to adduce.

Were the blood the first habitation of fever, the blood should be the first to exhibit some morbid change; but the nervous system is the first which *visibly* suffers, nervous symptoms being the first which palpably appear. If our readers will take the trouble of turning up the first volume of the Dublin Hospital Reports, they will find what we deem a sufficient number of facts in behalf of this position. Dr. Marsh has, in a very able paper upon contagion, brought forward many cases of instantaneous seizure upon the application of the febrile poison; and in them all, nervous symptoms were the most severe and the first pronounced;—such as imme-

diate loss of strength and spirits, general languor, coldness and pallidity of the surface, shivering, small weak pulse, headach, and pain of loins.—Time was not allowed before the appearance of these symptoms for any serious alteration of the blood; and if any did occur, it could only have occurred gradually, so that the first symptoms should have been mild, and those which succeeded should have increased in severity, as the whole circulating mass became involved.* But in these cases, and how many of a similar kind are met with in every day's practice, disease, and not merely so, but the *whole disease* immediately supervened on a state of health, the date of attack was definite, and the whole system was overpowered in a moment. To us, consequently, it appears inexplicable, by the symptoms, and inconsistent with physiology, to limit in such cases the seat of fever to the blood, and we have selected these merely because, being strikingly marked in their origin, any reasonings founded upon them must be less obnoxious to fallacy. Prostration of strength and mental impotency are ever foremost in the van of febrile phenomena, and both are nought but conditions of the nervous system. The blood does not lose its ordinary physical characters until sometime *after their appearance*; for when drawn immediately they appear, no appreciable alteration can be discovered in it, and this loss of external character, when it does occur, is always in a direct ratio to the intensity of the nervous symptoms; proving that disease of the blood in fever is not only subsequent in succession, but proportional in degree to derangement of the nervous system.

To propose a question to the Humoralists;—where, do we ask, have we any instance to which their doctrines can at all apply, in which *a whole disease involves a whole system in the space of a few minutes*? In purpura hæmorrhagica and scurvy, which are admitted to be the firmest fulcra of the Humoral pathology, their approach is slow and their course is gradual; the progress of the symptoms is in strict etiological keeping with the progress of the disease, less gives way to more and more to greater, and it is not, until the entire mass of blood is changed and the change is entire, that constitutional signs are manifested. Like some other poisons, that, which occasions fever seems to act directly upon the brain, spinal chord and nerves; or, in other language, upon the seat of life; its action, as well as theirs, will, of necessity, be modified by its strength and dose; when largely diluted, or acting upon a vigorous constitution, its latent period may be long, or its symptoms may be mild; when much concentrated, or acting upon a weak constitution, its introduction and action may be nearly cotemporaneous, and its symptoms intensely severe; and when its quantity and quality are both moderate, its period of latency and its symptoms will be proportionally modified. Hence it is that in India, where the poison is intense and the constitution enervated, a few hours only elapse between exposure and dissolution, and a few minutes only between the approach of symptoms and the period of exposure; and hence is it that in Europe, we have fever in all its types and degrees, and that a more careful ventilation and a stricter system of cleanliness have so debilitated this plague, that in the present

* The innumerable instances of deadly fevers being kindled up in the course of a few hours after exposure to concentrated malaria in the East and West Indies, as well as in several parts of Europe, prove that the nervous system is the first to feel the influence of the cause of fever.—ED.

day it is not to be compared, either in frequency or fatality, with what it is described to have been some centuries ago.

"Although the first symptoms of typhoid or adynamic Fever, such as nausea, oppressed or hurried breathing, sighing, oscitation, and similar signs of debility are probably the consequence of the first impressions made by the exciting cause, be that impure air, malaria, or contagion; yet even these symptoms, as well as those consequent on them, may afterwards be fairly accounted for, by the diminished vitality of the blood, which is exhibited in the signs of its unhealthy condition, which have been already stated to take place. For blood, thus unfitted for the purpose it was intended for in the animal œconomy, is not only incapable of supporting healthy functions, but must tend to disturb them. That part of it sent to the brain, therefore, instead of promoting nervous energy, rather tends to overwhelm it. The same may be said of all the other functions which depend on the nervous energy of the brain, which alike depend on the vitality of the blood itself. Hence, muscular power, respiration, circulation, and all the secretions and excretions, are liable to be impeded or disturbed, in proportion to changes from the natural and healthy condition of the blood, which indicate diminution of its vitality.

"The animal functions are most strikingly affected by the diminution of nervous energy and vital influence which occurs in typhus Fever. Hence arise muscular inactivity, sighing, debility of the heart itself, and slow circulation: and hence, too, the duskiness and yellowness of the skin, petechiæ, brown striped tongue, green and black vomiting, venous congestion of the brain, and coma, as we shall find when we come to consider those symptoms more particularly." 101.

This train of inferences has nothing to support it but consistency with the author's peculiar doctrines, and as we have endeavoured to prove that several of these doctrines are scarcely more than hypothetical, the deductions extracted from them must be meagrely supported. Understanding malaria in its etymological and most extensive meaning, as nothing but foul air, it matters not how or where generated, there can be little doubt that it is by far the most operative cause in the production of fever, and that the blood sustains a full share of its deteriorating power. But it is as illogical, as it is unphysiological, for the Doctor to maintain that while, according to his own showing, the first symptoms are nervous, the first animal constituent affected is the blood. We repeat it, that the blood exhibits no physical symptoms of disease, and the Doctor has not discovered one chemical symptom, or if he have he has declined publishing it, until after nervous symptoms have appeared. It coagulates as rapidly and separates as freely into serum and crassamentum before this period as during health; it appears neither softened nor dissolved; neither changed in colour nor altered in proportion. All its alterations gradually appear as nervous symptoms are developed, increase with their confirmation and vanish with their removal; and, what to some may prove still more conclusive, many cases commence, progress, and terminate, without exhibiting through their whole course any such change in the circulating medium as the author describes. This is particularly true in the synochus of Loudon. In many instances have we examined blood in every stage of fever, and have we found it—dissolved, half coagulated and unseparated, like to a mass of jelly—no; but firm, duly separated, and carrying an inflamed surface, differing in no respect from that formed during common inflammation. In a great majority of cases it is otherwise we admit, but the scholastic dogma—*exceptio probat regulam*—will not here apply, and one instance of genuine continued fever occurring without any peculiar change in the blood disables the doctrine, and renders

the humoral pathology as inapplicable to fever as it is to two-thirds of our ordinary diseases.

In continuation and support of the same theory the experiments of Prevost and Dumas, on the nature and action of the blood, and of Magendie, Barry, and Gaspard on the changes it undergoes by the introduction of certain fluids into the circulation, are brought forward and commented on; but, if the Doctor will excuse the candour of the observation, the citation of such authorities and facts we consider unfortunate, as both tend very strongly to support the views which it was his design to expose. In proof of this shall we present our readers with one of Gaspard's experiments, as detailed in the *Journal de Physiologie*, tome, 2d, p. 16, and when we premise that this experiment has been selected as a favourite voucher by the Doctor out of many of a similar kind, no suspicion can attach to us of having suborned our witness.

"On the 14th of July, 1821, I injected into the right jugular of a moderately sized dog ozs. ijss. of fetid fluid, thick, but not acid, which was obtained by fermenting for two days cabbage leaves in water, of the temperature 20 degrees R. During the operation the animal made several efforts to swallow, vomited repeatedly, and became faint; some hours afterwards it appeared very uneasy, its abdomen was painful under pressure, its respiration was embarrassed, difficult and plaintive, and other pneumonic symptoms appeared. At the end of nine hours a very copious and fetid stool was passed, which was black as soot, and consisted of feces, mucus and putrid blood, and shortly after a second of a similar nature was voided. 15th. Faintness more considerable, adynamia, step faltering, pulse feeble, thirst excessive, respiration weak. But what appeared most remarkable was the irregular action of the heart, which beat at intervals with such force and noise as characterise the last stage of aneurism, or hypertrophy. During the next two days all the symptoms were moderated, but on the 18th. debility became extreme, gait tottering, thirst excessive, eyes red, inflamed, and covered with mucus. nostrils tumid and stuffed, mucous lining of mouth very red and inflamed. About noon a stool was passed, which contained some clots of blood, and had both the odour, consistence, and appearance of pus, and at night the animal expired; five days after the operation.

Inspection. Skin, subcutaneous tissue and muscles presented the same dark appearance as after death from asphyxia, and were not altogether exempt from inflammation, conjunctivæ and lining membrane of the mouth of a deep red, or violet colour, and coated with a film of mucus. The lungs were slightly inflamed; there were several brown patches upon the left ventricle of the heart, which resembled spots of ecchymosis, and were not confined to its surface, but had made some progress into its substance. The right ventricle was *en partie rempli* with a large fibro-albuminous concretion, hard, of a yellowish white colour like fat, weighing two grains and a half, and adhering to the ventricle by a point of surface not broader than a nail, which seemed inflamed and ragged. This concretion extended into the pulmonary artery, both cavæ, vena azygos, and even the axillary and right jugular veins. It was of the same colour and consistence throughout, and was, probably, the cause of the palpitations which were so remarkable during life. The œsophagus and stomach appeared sound, but the mucous membrane of the intestines, especially of the duodenum, rectum and some of the small intestines, was of a red violet colour and inflamed, but this inflammation was unaccompanied by thickening, or ulceration, and resembled very much the effects of ecchymosis. The internal membrane of the rectum was still more affected, and its mucous glands were much enlarged and very visible. This intestine contained puriform matter, similar to that voided in the last dejection; the rest of the alimentary canal contained mucosities of a grayish white colour, and very thick consistence. The mesenteric glands were filled with blood, and much inflamed. The gall-bladder was mottled externally with brown and violet spots, and was filled with a black bile, thick and ropy, like melted pitch."

One clause of this translation we have characterised with italics, as peculiarly remarkable. The fibro-albuminous substance here described seems to be nothing more than coagulated lymph, blocking up the large vessels of the heart, which the ancients were accustomed to designate by the fanciful name—*polypus*, and which is now every day met with on dissection. That this concretion could have existed to the extent and size above described for four days before death, or during no less than four-fourths of the time occupied by the experiment, is to us as marvellous as we presume, it will be to our readers. The operation was performed on the 14th, and the palpitations which are ascribed to the presence of this concretion, are noticed the next day, so that this concretion must have formed a few hours after the operation, and must have existed for four days after it. We are induced to notice this circumstance thus particularly for two reasons; to prove that the palpitations, here ascribed to what was merely a post vitam product, must have depended on some other cause, and that the existence of this concretion is *toto celo* incompatible with Doctor Stoker's theory. If the blood be the seat of fever, if the change effected on the blood by fever be a dissolution of its natural consistence, and an intermixture of its separate constituents, and if the essence of fever be debility, here in a dog, evidently labouring under fever, as is proved by the symptoms, progress and pathology of his case, is a large deposit of coagulable lymph in the right side and large vessels of the heart; but coagulable lymph is neither the effect of dissolution, nor intermixture of the circulating medium, but of inflammation, or vascular activity. Supposing, however, this concretion to have been formed on the day succeeding the operation, that the circulation could proceed for four days with the right vessels and ventricle of the heart blocked up with lymph, and that the palpitation and vascular disturbance are to be ascribed to it, to what shall we ascribe the other and preceding symptoms? Whence arose the faintness and nausea and spasm of the œsophagus and vomiting, all of which occurred even during the performance of the operation? Will it be argued that these phenomena arose from the blood being poisoned, before the injected fluid could have vitiated one fourth of the mass, and before one drop of what had been vitiated could have reached the brain? The fetid liquid was thrown, not into the carotid artery, but into the jugular vein, so that an entire circulation was necessary ere the poison could operate *via circulationis* upon the cerebral system. The faintness, nausea, vomiting and spasms of the œsophagus during the operation, and the palpitation of the heart, the inefficient action of the lungs, the tottering strength, the vascillating step, and feeble pulse after it, are, consequently, to be esteemed primarily and purely nervous symptoms, as arising from and continued by nervous depression, and as completely independent, in the first instance, of any condition of the blood, as are the very similar phenomena occasioned by the injection of hydrocyanic acid. If water, weakly charged with this poison, be injected in very small quantity into the jugular vein of a dog, symptoms almost precisely the same with the former will be produced, and the stronger the injection which is used the more intense and immediate its effects; so that if the undiluted acid be alone employed, and it matters not whether the jugular vein or carotid artery be the channel chosen for the experiment, life may be extinguished as by a stroke of lightning, thus leaving no doubt as to the system upon

which it operates, and at the same time furnishing an explanation of the comparative slowness of its action when employed in a diluted state.

To draw our observations on this part of the subject to a close, we conclude that there is not sufficient evidence afforded by nature to prove that the blood is the seat of fever—that its causes and symptoms, progress and treatment, terminations and pathology, discountenance such a doctrine—that the author's arguments can be easily answered in accordance with a different theory—and that the stumbling-block which he and every adherent of his school infallibly falls upon in investigating this question, is the mistaking a *secondary* for a *primary* effect. That the blood is generally changed in fever no one can and no one does deny, and that so soon as it does change, every function and secretion must change along with it, every one admits; that this change consists in a diminished vitality, or partial death of the blood, those who believe in the life of this fluid, will feel little difficulty in conceding, and that the action of a peculiar poison is the producing cause of this change, all Fluidists and Solidists agree; but the Humoralists may believe and the Solidists may concede all these points, without attaching any thing beyond a subordinate influence to the state and action of the nervous system. And here lies the point of difference at which these sectarians stand at issue. The nervous system is the key-stone in the doctrinal fabric of the one party, the blood is that of the other; and while much of the creed of the latter is adopted and advocated by the former, the views of the Solidists take their rise from a very different source, and ultimately terminate in a very different result. It is the paramount importance of this result which has beguiled us into such a lengthened canvass of the opinions of Dr. Stoker, and we plead no other apology, either before the writer whom we are examining, or the reader whom we are addressing, for the size and spirit of this criticism: If it can be established that the blood is the habitation of this disease, on the derangement of which hangs every symptom, and on the measure of which derangement depends every danger; if it can be further shown that the deranging cause is a debilitating poison, that the derangement wrought is neither more nor less than a partial disorganization and death of an organized and living fluid, whereon the very being of the animal system rests, and that a change in the qualities, not in the quantity of the blood, should be the object of our treatment it is tolerably obvious that all active measures must forever be abandoned, that the bloodvessel system might be wholly drained without affording relief, and that those, who have hitherto been inculcating and practising depletion, have been contending with nature. Were all this made out it were clear, indeed, that fever and debility are tolerably synonymous, that debilitating measures must consequently be fatal, that wine and bark are our surest remedies, leeches and the lancet our most dreaded foes. A doctrine which leads to inferences so practical cannot be loosely passed over, and an author, especially an author of Dr. Stoker's growth, who teaches such a doctrine, should be well prepared with evidence ere he deliberately gave it birth. The following quotation will supply us with an epitome of the treatment taught by this school, and with a specimen of the modest claims which it advances to catholicity;—

“The views taken, both of the nature and treatment of Fever, by Dr. Burne, entirely accord with those which may be found stated in my medical reports from the Fever Hospital, as well as in my separate Essays on that subject. And as (when speaking of his denomination of Fever) I have already remarked, this leaves I think, no reasonable doubt

of the epidemic Fevers of London having lately become more typhoid or adynamic, than they had formerly been. It is further satisfactory to me to find, that the treatment which I had long since adopted and recommended in our typhoid Fevers, has been found suitable to the prevention and cure of those in London; and that, too, in proportion as they have acquired more of that form, with which I was best acquainted.

"The first principles of my practice thus appearing to be as generally received as they had before been rejected, it only remains for me to detail the remedies which I have employed; and with respect to these, too, I might be even more brief, from having little to add to the list of remedies in typhoid Fevers, which may be found at the 18th page of my 'Treatise on Fever,' published in London, A.D. 1814, as well as in my 'Medical Reports from the Cork-street Hospital;' but, that, as these publications may not be in the hands of the reader, some recapitulation of those remedies themselves; and my reasons for recommending them, supported as I have been by all my subsequent experience, may be permitted. They may be arranged according to their relative importance in the treatment of Fever, in the following order, viz.

" IN MIXED FEVER,

Cleanliness.
Ventilation.
Cool Regimen.
Plentiful Dilution.
Purgatives.
Topical Bleeding.
Antimonial, or James's Powder.

IN TYPHOID FEVER.

Yeast or Barm.
Wine.
Aperients.
Emetics.
Blisters.
Tepid, or Cold Affusion.
Peruvian Bark.

"Many other remedies may, no doubt, be occasionally employed with advantage for the relief of the symptoms which accompany peculiar forms of epidemics, or such as are produced by extraordinary idiosyncrasies. But these, according to my experience, are more frequently applicable than any others, in the treatment of our common indigenous Fever.

"Of the beneficial effects of the first four articles of this list of remedies in the treatment of Fever, it is no longer necessary to insist on, for they are no longer denied. For the same reasons, too, I need not as on former occasions, enter more fully into explanation why blood-letting has not a place in this list. When, however, I come to speak of topical bleeding, I shall have to state, that under the pestilential form which our epidemic Fevers have assumed since the year 1823, I have found it advisable to employ even this partial evacuation more sparingly and cautiously than in my first publications on Fever, I felt justified in recommending.

"With respect to Peruvian bark too, which I have here added to the list of remedies for typhoid Fevers; although, on former occasions, I stated, that 'I had not found it necessary for the cure of the continued Fevers in Dublin,' I have now to observe, that under the growing malignity of these distempers, I have employed some preparations, especially the sulphate of quina, with obvious advantage, even in cases which did not partake of tendencies to remittent or intermittent forms; in such tendencies, however, the usefulness of that remedy was most manifest." 113.

We have met with much empty bravado in the chronicles of foppery, and we have occasionally read something very like it in the annals of heroism, but never before the present moment, do we recollect to have seen a victory so triumphantly laid claim to by a few disabled survivors of a faction. There is an instance of a Grecian soldier, who, from a severe wound received during an engagement in which all his companions had been slain, was left apparently dead upon the field, but ultimately recovering from his insensibility, and observing that none of the opposite party could be seen, concluded that he was the sole survivor of the battle, instantly erected a trophy upon the spot on which he had lain, and claimed the victory. But

our parable must here close ; for shortly afterwards a few straggling soldiers came in sight, who had come out to plunder, he was immediately taken prisoner, and hearing that a large body of the enemy still survived, he quietly yielded up the victory which he had deemed his own. To be beaten is bad, but not to know when one has been beaten enough is inexcusable ; a superiority either in strength, or number may occasion the one, but the other can only be attributed either to indifference, or despair. Doctor Stoker pays his London division of the faculty rather a doubtful compliment by citing Doctor Burne as their organ ; for, without intending the slightest disrespect, we feel very confident that on a subject of so much importance, and we will say so imperfectly understood, this metropolis would scarcely elect him to be its representative. The names of Bateman, of Armstrong, and Clutterbuck, cannot be so soon forgotten ; their works, which we feel no scruple in distinguishing as *sine comparatione* the most accurate and the most able, which have ever appeared on this disease in this or any other country, are not yet obsolete ; the influence, which they have wielded over the faculty, has not yet been forfeited ; and the portraits, which they draw, the FACULTY, at least in this section of the empire, continues to recognise as upon the whole faithfully taken and elegantly executed. The doctrine of localism has perhaps, been adopted too exclusively by one, and treatment by depletion has, perhaps, been recommended too indiscriminately by another ; but these are *peccata virtuti propinqua*—not so much faults as failings—and, without giving any sanction, in these philo-catholic times, to Popish theology, they cannot be far misplaced by being included in the class of *venial sins*.

In the preceding therapeutical catalogues the lancet is not once mentioned, only in one of them is local bleeding noticed, and save one it stands the last item upon the list ! The peculiarity of this arrangement would not have been so striking, had the treatment proposed been intended for the lowest type of fever ; but the Doctor's practice is as general, as universal as his principles, and in a second column a new bill of fare is drawn out adapted to adynamic typhus, at the head of which stands yeast and wine, and from which are entirely excluded both local and general bleeding. So that the first column, which excludes general bleeding, is intended for the cure of mixed fever—synochus—or the common continued fever of this country ; and the second column, which excludes all bleeding, is intended for typhus, typhus mitior, and typhus gravior. This is, verily, a distinguished exemplification of the popular and reproachful adage—doctors differ,—and a sad illustration of the unharmonizing character of all medical opinion, and the capricious fickleness of all medical practice. But the above extract has one quality, nay two of truth—simplicity and universality ; for nothing can be more easily understood than that we are not to bleed generally in *any* fever, and that we are not to bleed at all in those of the *weakest constitution* ; and when it is added that these directions apply to every case, constitution, and circumstance, they are not less universal than easily comprehended. Besides, they are in strict keeping with the Doctor's other principles ; for he, who has faith enough to believe his views as to the nature of fever, will generally have candour enough to carry them along with him into actual operation. Weakness calls for wine, as certainly as plethora admits of depletion ; and the system, which is sinking from debility, stands the best chance of being saved

by tonics. All this is strict Baconian philosophy; rigidly orthodox deduction. Locke could not have extracted from such premises a more legitimate inference, and our admission of the inference cannot be optional, if the premises have been indisputably proved. These premises have already been analyzed, and arguments and facts, we hope sufficient both in strength and number, have been brought forward to show that, at least, they should not be implicitly received. The blood is changed in fever, but it is not the first part of the animal system which is changed, and it is, therefore, not the part which is entitled to the first attention. To treat fever, consequently, as a disease of the blood is to mistake its seat; to treat it as a disease of unmixed debility is to mistake its nature; and to recommend bark and antiseptics to counteract putrescency, and wine and nourishment to remove debility, is to physic effects in place of causes, to filter the stream while the fountain is left unpurified and unimproved.

If symptoms during life and appearances after death can speak any language, or mean any thing, it is that there is scarcely *among us* at the present period a single case of what has been called *simple fever*, some one organ being unproportionally affected, and very few cases which can be honestly called *ab ovo adynamic fever*. To talk of pure adynamic fever, of pure unmixed debility, of a disease made up almost exclusively of negatives, is to talk of a very rare occurrence, we had almost said of a very phantom. Such a phenomenon must be looked for in the tomes of the ancients, or in Dublin. It is an exotic to be travelled for, and any description of it with which we may be favoured, can scarcely be turned in any other way by us to practical account, than by having it placed for exhibition in Great Russel Street, or Exeter Change. This may be suspected to savour of strong language, and so it does; but we are now contending on a strong point with a strong antagonist;—the lives of thousands are at stake, and modesty or mannerism in such an engagement would be perfectly out of place. When we find acute pain in the head, or strong pulse at the wrist, a burning skin and ardent thirst, can we give wine? when we find the lungs gorged and labouring, can we give bark? when we find the heart active and the powers of life strong, can we dread weakness? and when we find improvement in every symptom following depletion in every form, can we execrate the lancet and prescribe stimuli? When we find upon dissection the most unequivocal vestiges of inflammation, how can we regard fever as unmixed debility, and how can we cure it with wine? Is pleurisy to be cured with wine? Is inflammation of the bowels or the brain to be cured with bark? Does excessive vascularity, or pus, or serum, or false membrane, or ulceration denote weakness? If thickening of membrane, effusion of lymph, collections of pus, ulcerations, adhesions, and consolidations bespeak not activity we know not what they indicate; if they be not german to inflammation we are ignorant of what inflammation is. Yet inflammation and ulceration of the mucous membrane of the intestines, inflammation and thickening of the mucous lining of the bronchiæ; inflammation and hepatization of the parenchyma of the lungs, inflammation, thickening, opacity, and adhesions of the membranes of the brain and spinal cord, increased vascularity, softening or hardening of the cerebral substance, and deposits of lymph, serum, and pus between the membranes, within the ventricles, and upon the base of the skull, are

the ordinary appearances discovered by the scalpel in the bodies of those who have sunk under fever. Such appearances, if any thing at all be known of the phlegmasiæ, must be ascribed to unnatural vascular activity, and such increased action as can induce these appearances is surely not to be put down with wine. A firm and even a hard pulse may be deceitful, severe pain may prove equivocal, the common *rudicia* of augmented action may lead astray, and even a reduction of this pulse and pain by bleeding, and the removal of the other signs of augmented action by other depletory measures may still be obnoxious to error; but when to these symptomatic and curative expositions he added the necroscopic commentary, when the whole disease, both in its living and dead characters, is thus laid collectively before us, any ground for misconception upon a point like the present seems to us totally inconceivable. The nature of the work illustrates the character of the agent, any obscurity which may have attached to the language of the symptoms during life, receives its explanation in the appearances after death; so that while some plea may be urged by a practitioner for being a Brunonian during the life of his patient, none can possibly be advanced for remaining one after his dissolution.

The force of these arguments the doctor endeavours to avoid, by citing the authority of two very distinguished anatomists against the occurrence of such pathological appearance after fever.

"Neither has morbid anatomy appeared to me to warrant the conclusions of those who hold the opinions of typhous fever being an essentially inflammatory disease. In some instances, I have observed the same partial turgescence of vessels which dissectors report, and likewise signs of inflammatory action in various parts of the bodies of those who died of fever; the former, however, by no means designated previous inflammation; and I could generally trace the commencement of inflammatory action, which led to the latter appearance, from local diseases, that preceded or supervened on fever, and sometimes at late stages; but in several cases, where I had witnessed the highest degree of febrile excitement before death, no such signs of turgescence, or of inflammation were observable on dissection.

"In support of such statements, I was happy to be able to add, in the same Report, the satisfactory testimony of two of our most distinguished Anatomists. And besides their unquestionable qualifications, and numerous opportunities for examining the bodies brought to their several theatres for dissection, their opinions on anatomy have peculiar advantages of being deduced from observations that were not influenced by preconceived theory, or by cases selected for particular views.

"In the midst, Mr. Kirby writes in answer to my queries on the subject, 'of all the discussions relative to topical congestion, it was impossible however not to remark the singular want of accordance between the prevalent opinions and local appearances.—The brain, so constantly supposed to be the seat of inflammation, rarely exhibited the characters indicative of such a state. In some instances this organ was much paler than usual; in a very few, amongst a great number of dissections, was there any evidence of sanguinous or serous effusion.' And after recounting his observations on all the other vital organs, he thus concludes:—'In short, in a great majority of cases, so little did any particular organ seem to suffer that I have wondered what could have been the cause of death.'

"With the foregoing statement, the answers of Dr. Macartney, Anatomical Professor of Trinity College, Dublin, to the subsequent queries of Dr. Barker on the same subject, are coincident, and appear to me further to corroborate the opinion, that typhous and inflammatory fevers are distinct. I may, therefore, be allowed to add the following extract from Dr. Barker's Report for the Years 1817 and 1818, as published in the second volume of Transactions of the Irish College of Physicians, pp. 574.

"He (Dr. Macartney) informs me, that having reviewed his notes on the anatomical examination of persons who died of typhus fever, he can state, as the result of his experience, that morbid appearances of typhous fever, are not those of common visceral inflammation.' And having stated more fully the actual observations on which this opinion was founded, he concludes thus :—

"Two facts deserve to be recollected: first, that the duration of general fever and visceral inflammation are not the same,—second, that the internal inflammations are very common in hot-blooded animals, but idiopathic fever is peculiar to the human kind.' It may be added, that processes of an inflammatory nature are fitted for repairing parts that have their functions interrupted, or their structure injured, but the effects of typhous fever have no such power." cxiv.

This passage has been chosen, because it is the most favourable to the Doctor's views on this point of any in the book; and when it is considered, that a subject of so much importance as the pathology of fever is passed over so lamely, at the very time the writer is labouring to prove that fever has nothing inflammatory in its composition, the haste with which this part of the subject has been got rid of must appear somewhat singular. It may have been maintained in a moment of rash and thoughtless dogmatizing, that fever is a disease as *purely* inflammatory as cephalitis or pneumonia, and ground may have been given to the followers of Brown to presume upon the same pathological appearances; but as such an *ultra* doctrine can be held by few in the present day, any arguments tending to subvert it are quite unnecessary. Clutterbuck was once accused of teaching it; but, if the accusation were ever just, we believe there no longer remains any pretext for its continuance. At all events, such a sentiment has never been advocated by us, and we totally repudiate the charge that it is the recognised doctrine of the Solidists. Fever is inflammatory, but it is not purely inflammatory; erysipelas is inflammatory, but it is not pure inflammation. Typhus and synocha are mingled together in different doses in the common fever of this country; there is vascular activity with nervous depression strength with weakness, and it is just the varying ratios, which these two qualities maintain towards each other, that supply us with all the varying types and shadows of this disease. If the inflammatory quality preponderate the disease will be marked by activity, if the nervous, it will be characterized by debility; if the inflammatory symptoms be severe the cotemporaneous nervous symptoms will be moderate, if the nervous symptoms be severe the inflammatory symptoms will be less distinct; and thus, by a mere interchange of the ratios between these two classes of symptoms, may we manufacture continued fever of every character, and construct a *pyretological scale*, the upper half of which shall consist of fevers *plus* or positively inflammatory, the lower half of fevers *plus* or positively nervous. The admixture of nervous with inflammatory action can be conceived so slight and disproportioned, that the disease may amount to the purest form of synocha; and there may be such an excess of nervous action as shall nearly, or altogether disable the phlogistic quality, and produce a fever of the lowest imaginable type. But in every case and type of fever there are two *constituentia*, equally essential to its existence, and the proportion which these bear to each other being given, it will be easy to discover the nosological position of every case we meet with.

The phlogistic appearances revealed by the scalpel after fever cannot be the same with those observed in pure and unadulterated inflammation. They will be modified in kind by the nervous action with which the inflam-

mation is complicated, and they will vary in *degree* according to the relation which obtained between the doses of the febrile elements. The evidence of Dr. Macartney and Mr. Kirby has, consequently, no weight against us, as it attests a mere truism—a fact we are equally disposed to admit with these gentlemen;—on the contrary, in the assertion which it contains, that “morbid appearances in typhus fever are not those of common visceral inflammation,” two admissions are comprehended, co-extensive with the doctrines we are arguing for:—1st, that the morbid appearances are inflammatory; and, 2dly, that these appearances are different from those of common inflammation. These two admissions are made in this extract, the second directly and the first constructively, and in these two admissions are contained the identical views which it has been our object to defend. As to the author’s declaration, that in several cases where he had witnessed the *highest degree of febrile excitement* before death “no such signs of inflammation or turgescence were observable on dissection,” we have only to remark that it is quite at antipodes to our experience; and when we are told that *processes of an inflammatory nature are fitted for repairing parts that have their functions interrupted, or their structure injured, while the effects of typhous fever have no such power*, we must reply that we scarcely understand the diction, and not at all the sense of the passage, either in a pathological or physiological point of view. Processes of an inflammatory nature can never be considered harmless and seldom safe; and to talk of them as calculated to repair injured structure and impaired function, is to talk of pneumonia as well calculated to cure hepatization of the lungs and gastritis as conducive to good digestion! Fever was once viewed as a therapeutical agent of the *vis medicatrix nature*; and, whether she purged her patient by inducing diarrhœa, or bled him by causing hæmorrhage; whether she worked through the kidneys or the skin, Nature was implicitly confided in, all that she did was deemed good and able practice, and a refreshing sleep, or a critical tremor was set down as different ways of arriving at the same end. Much of this is fancy and some of it is fact, but we are acquainted with no heresy that ever considered cephalitis as a salutary process; and, although the preservative powers of the system are excited by the approach of danger, and nature has recourse to every plan to avoid or counteract it, pneumonia must ever, we fear, be esteemed a wretched means of improving, either the structure, or the functions of the lungs. When the morbid cause has ceased to act, or when the constitution has strength enough to resist its influence, health may be restored; but it is only restored when the exciting cause and the unsalutary effects which it has occasioned are removed, and this is quite as true in common fever as in common inflammation. Ulceration of the intestines, inflammation of the bronchiæ, or of the arachnoid, and diseased secretions are *effects* of fever; yet they all can be and are removed by the preservative powers of the constitution, as effectually as enteritis, bronchitis, or any other *itis*. None of them certainly are salutary processes, either fitted or designed to repair diseased structure and function; they are morbid processes, calculated to disorder both; but so is it in ordinary inflammation, and a fractured cranium, or a rotten lung, might as justly be talked of as fitted to repair structure and function, as inflammation of the eye or brain.

We have now concluded our observations upon that part of Doctor

Stoker's work which is devoted to fever, and it occupies seven-eighths of the *Medical Report*; and we feel considerably disappointed by having been compelled to differ from so respectable a writer so often and so widely, upon the very vitals of this most important disease; but where the interests of humanity are rendered, if possible, still more momentous by being bound up with the interests of science, truth must be maintained boldly, and error must be boldly opposed. Had Dr. Stoker circumscribed the applicability of his conclusions to Dublin, or to the Cork Street Hospital, the special theatre of his observations, however violently tending we might have been to scepticism, the character of the author would have procured respect for his principles, and, probably, some reverence for his practice. But when, uninvited and unprepared, he steps beyond the sphere of his own movements, and, leaving his own workshop, begins to cut and carve after his own taste and his own models a foreign and unknown material, which moreover is the property of others, it cannot be deemed bold for the owner to look after the interests of his property, although by doing so he may, peradventure, expose the principles, or hurt the feelings of the intruder. When the conclusions which he draws at home, and which should be devoted to home consumption, are bound up and sent abroad; when the practice which he has himself chosen is indiscriminately recommended, and when it is his main and constant effort to stamp upon fever in the abstract the local features which it wears, or is supposed to wear in Dublin, we are goaded to the contest in self-defence, had we no other motive, and we are urged to repel a generalization, which can no more apply to the treatment of fever among us than it can to the treatment of syphilis in Dublin. There is no question but this disease occasionally assumes a very typhoid form, and the Doctor may have met with more than his proportion of this type; nay, it is certain, and more especially in Ireland for reasons already given in the commencement of this review, that whole epidemics have been characterised by debility; but these are the exceptions and not the rule, and it would be to subvert the very elements of common sense to transfer generic characters to a rare and almost expatriated species. Before fever, as a generic disease, can be described and treated as it is in this work, consistently with nature, the disease must change its seat, and alter its symptoms, and furnish a new series of pathological phenomena. Such revolutions, however improbable, are still possible; but to describe them now must either be conjectural or prophetic, and whether one or other, is wholly supererogatory, as there will be time and talent enough, we have little doubt, after their appearance, to announce their arrival.

In the remaining pages of this volume some remarks are made on intermittent fever, tic douloureux, measles, small-pox, and dropsy; but as the few observations which he makes are chiefly intended to illustrate Doctor Stoker's general views of pathology, and as we feel no inclination to extend at present our criticisms, we shall merely extract a few passages, and then close the review. After remarking that tertian agues prevailed in the Spring and quotidians in the Summer—that he seldom found it necessary to bleed, and when he did bleed, that he preferred the apyrexial period for the operation—that he generally confided the case to an emetic in the first instance, and to sulphate of quina afterwards, he then details three cases of tic douloureux, and adds;—

"I have introduced these cases of *tic douloureux* under the head of intermittent Fevers of the past year, because the production of these different forms of disease, appeared to me to be alike influenced by malaria, as their chief exciting cause; and as their nature was very similar, I treated them also in nearly a similar manner. In both ague and intermittent neuralgia, I believe the first impression of the exciting cause to be made on the gastric juices; and that the disordered function of digestion, and the consequent morbid condition of the chyle, and of the other contents of the stomach, whether ultimately absorbed and carried into the sanguiferous system, or carried downwards by the *primæ viæ* become in their transit, a chief source of all the succeeding symptoms; the diurnal revolutions of those symptoms, probably depending upon the habitual revolutions in the functions of digestion, produced by the custom of taking food at particular hours of the day. When these periodical diseases, however, become more established, it is probable, not only that the fluids are further affected, but that consequent changes are excited, in the texture of the vessels of the chyliferous, sanguiferous, or lymphatic systems, or even in the nerves themselves; and hence, the morbid condition of the fluids, may be the primary source of organic disease.

"On these principles perhaps, the efficacy of emetics, both in shortening the paroxysm of intermittent Fever or neuralgia, or in preparing for the successful exhibition of the different preparations of Peruvian bark, may be satisfactorily accounted for; and the same may be said with respect to the advantages which are sometimes derived from anodynes, previous to the exhibition of the bark; for in such cases, the acrimony of the gastric juices, as will sometimes happen from mere dilution from warm water, may be so far obviated as not to excite morbid actions on the extremities, either of the vessels or the nerves." 181.

The tumours, which have been sometimes observed to disappear during the paroxysms of an ague, and the sudden enlargement of the liver and spleen which is occasionally witnessed in the intervals are accounted for by the Doctor on the principle of congestion, or an unequal distribution of the fluids; and there are certainly many reasons for regarding this opinion as correct. The existence of congestive fever is disputed by many, but it is likely that the hesitation, which some feel in admitting this species, arises more from the manner in which the fact is described, than from any want of evidence in support of the fact itself. It was long ago remarked by Fordyce, that the greatest danger to be apprehended during fever was unequal action, or the occurrence of local congestion; and dissection has abundantly confirmed this remark. To understand congestion in its simplest and most useful sense, we believe there are few cases of fever which are not to a certain degree congestive; and while this fact may have been cramped, by limiting this species to such patients as have an anemiated cold surface, and a weak, slow pulse, there is no reason why the fact itself should be controverted, nor why our practice should not benefit by the information it affords.

"When treating on the pathology of our common continued Fevers, I have stated the reasons which led me to suppose that of late years they have generally had a tendency to a typhoid character; and the same reasoning appears to me to be applicable to the exanthemata, which also have been epidemic at certain periods of the past year, an opinion which I shall illustrate by cases of *measles* and *small-pox*, and refer, with respect to *erysipelas*, and other of the exanthemata prevalent, to the reports I have already published of former years.

"MEASLES.

"Measles prevailed very generally during the months of January, March, April, May, and June, in the past year; and in many of the cases I met with, both in hospital and private practice, it was obstinate and severe, during the different stages; but, in every case,

the applicability of bleeding in the eruptive stage, appeared to me to be the paramount question, both in importance and difficulty." 184.

The answer which this question received was unfavourable to bleeding; rubefacients applied to the chest, small doses of tartar emetic frequently repeated, and demulcent expectorants were preferred; but afterwards he adds:—

"In two cases, however, of the sequelæ of measles, one a male, and the other a female, I found it necessary to direct bleeding repeatedly for the relief of pulmonary affections, such as from the pernicious effects of the prevailing north-east winds, were then often to be met with. In all such cases, the blood was deeply and densely buffed, and the operation in general gave relief; relief, however, which was promoted by the exhibition of nauseating doses of the solution of tartar emetic, in aid of other more cordial expectorants, and of sudorifics, particularly preparations of nitre and ipecacuanha and of ammonia.—The recovery of these patients from the sequelæ of measles, was slow, but ultimately complete." 190.

Although vaccination is not an infallible preventive of variola, there can be no doubt that the varioloid eruption which occasionally succeeds it is much less dangerous than the unmodified disease; and it would also appear that the contagious poison, exhaled during small-pox after vaccination, as well as the matter secreted by the pustules, will generate a much milder disease than the ordinary one, in those who are unprotected or have never been vaccinated.

"I might detail very satisfactory evidence indeed, of small-pox having extended by its proper contagion through numerous families, who had been previously vaccinated, and who had been deemed by eminent practitioners, quite secure from the danger of any such attack. In one of these families, in particular, I had been very intimate from the birth of the children, till they arrived at adult age, in 1827, when all, six in number, were successively attacked with the varioloid disease. I had visited them in all the diseases incidental to children, and was called on to witness the regular progress of the areola after vaccination, so that I was able to add my testimony to that of the several respectable medical practitioners, who had vaccinated them; yet the successive attacks of the eruptive Fever of the small-pox were in all until the seventh or ninth day, apparently as severe, as if no such immunity had been given; and in one of them, a young lady of seventeen years of age, the pustules were confluent and succeeded by secondary Fever, which for many days had an alarming aspect, and was of doubtful issue. The sequel, too, marked the virulence of the preceding disease; for, not only considerable pitting over the face and bosom, after the desquamation of the cuticle, but also considerable delicacy both of the pulmonary and hepatic systems succeeded, and which only disappeared in the course of last summer. The pitting too has become less perceptible; so that it can now be discovered only on close examination. A similar pitting followed a similar attack in another young lady of the same age, whom I attended in the past year; she was remarkable, too, for the same delicacy of complexion; in this instance also, the marks of pitting are become gradually more faint, and probably will totally disappear.

"Of the six cases which were admitted with small-pox into the wards of the Hospital under my care, in the months of April and May, when the disease was most prevalent, four were females and two males; three of the females had been vaccinated, and the other inoculated with the small-pox; but neither of the males were provided with any such protection. All had arrived at adult age; but that of the eldest did not exceed thirty years. In three of the four females, the eruptive stage was severe, and of these three, she who had been inoculated with the small-pox, had the disease most severely until the ninth day; and in these three, the eruption was ultimately confluent, and pustular; so much so, that I deemed it advisable to puncture several of the largest pustules, in order to moderate the disease, as recommended by Tissot and Burserius; a practice, that in many instances of the worst forms of small-pox, I have found highly beneficial, both in moderating existing

Fever, and preventing secondary Fever. In all these females, however, a remarkable degree of the symptoms was observed on the 9th day, and no pitting remained after desquamation.

In the first part of Doctor Stoker's Pathological Observations, Published in 1823, and which will be found noticed in this Review for June, 1824, several principles are laid down and commented on regarding the nature and cure of dropsy. This disease, or rather class of diseases was then described under two divisions—dynamic and adynamic; the first admitted bleeding, the second did not, and both were made to illustrate the humoral pathology. A few *dynamic* cases are now added to those formerly given, and the principles of the old division continue to be retained. As there is nothing new, therefore, to encourage further notice, we shall here dismiss our author for the present; hoping ere long to have another opportunity, in perhaps another place, of taking up some pathological points which have been now of necessity omitted, and of still more minutely analyzing the principles which we have found it our duty to criticise. And we rest satisfied, from our general knowledge of the author, that difference of sentiment between members of the same profession, who can have no other motive for their difference than a sincere regard for the interests of their common profession, will never give rise to unpleasant feeling in either. We believe that Doctor Stoker has been teaching certain doctrines injurious to this profession, and we are called upon to correct error, wherever, whenever, and however it may present itself; and knowing, as we do experimentally, the baneful influence of Brunonianism over the management of fever, it shall ever be our business, as it is our duty, to attack and expose it, no matter by what authority, or with what ingenuity it may be advocated.

VI.

1. ON DISORDERS OF THE MIND IN LYING-IN WOMEN. By *Robert Gooch, M. D.*

2. ON PUERPERAL MANIA. By *Dr. Marshall Hall.*

It will be remembered that so long ago as the year 1819, Dr. Gooch published a paper on puerperal insanity, in the last volume of the College of Physicians. The lapse of ten years has afforded the author great additional experience; and although he does not find many errors to correct, yet he observes some obscurities that require elucidation—some opinions that deserve to be enforced—much information that ought to be communicated. He has now, therefore, "written almost a new paper on the subject," retaining out of the former only the cases, and those views which he still entertains, and finds himself unable to state more explicitly. We shall endeavour, for the benefit of those who do not possess the volume under review, to condense the more prominent features of this paper, hoping that this abridgment will induce many to peruse the original.

During the progress of pregnancy, there is no time at which the mind

of the mother may not become disordered; but there are two periods more particularly obnoxious to this distressing malady—parturition (or rather a little afterwards)—and lactation. Our author has repeatedly seen the commencement of mania and of melancholia in women who were in child-bed, or who had recovered from their delivery, and were nursing. Dr. Gooch prefers relating a case or specimen of each, to a general description of the disease—and for this reason.

“Such descriptions are commonly formed of a bewildering multiplicity of circumstances which never occurred together in one and the same instance, so that they are pictures which resemble nothing in nature, like the abstract ideas of the old metaphysicians.” 110.

If this maxim come to be acted on in Medical Literature, there must be a total revolution in the construction of systematic works. They must, hereafter, consist of *cases*, and not of general descriptions of diseases. It is very true that *all* the symptoms enumerated by systematic writers, *very seldom* occur in any one case—nor do we believe that the most ignorant student or wrong-headed practitioner ever expects such a thing. But as some of the symptoms *always* occur, and most of them are *generally* present, it is surely better to include all the phenomena in a description, than merely exhibit a *specimen*, in which some, or perhaps many of the usual symptoms may be absent. We think, therefore, that Dr. Gooch's reflection (for surely it is a reflection) on systematic descriptions of disease, is both ill-timed and injudicious. We are already inundated with cases, and this plan of Dr. Gooch's would only increase the “bewildering multiplicity.”

In the cases which had occurred during lactation, or rather after weaning, the author does not attribute the disease to the cessation of suckling. The symptoms in all the instances, had commenced *before* the child was taken from the breast. Nearly all these were cases of melancholia rather than mania, and there was this peculiarity about the commencement of the disease, which Dr. G. has never or seldom noticed at the commencement of mania—namely an incipient stage, “in which the mind was wrong, yet right enough to recognise that it was wrong. We shall extract the following case, which is offered in illustration.

“A pale delicate lady, nursing an infant four months old, told me that she scarcely knew what was the matter with her: her sight was so impaired that she could not read; her powers of attention were so much impaired that her household accounts were burthensome to her; that she often rang for the footman, and when he came she had forgotten what she had rang for. She said she had a good husband, sweet children, ample property, every thing to make her happy, yet she felt no interest in life. She added, that if this went on thus she should lose her senses. She had lost flesh, and had little milk. After a short time she took it into her head that she had a fatal disease, and I was called out of my bed several nights to see her die. She told me that I was quite mistaken about her case; that she was sure she was dying, and that if I would sit down for five minutes I should see her expire. She next began to accuse her friends, especially her husband, whom she charged with infidelity, and an intention to poison her; and it became necessary to separate her from her family, and place her in that state of seclusion and controul usually employed under such circumstances. She continued in this state many months, but ultimately recovered, and has had a child since without a recurrence of the disease.” 115.

In the above case we confess that we cannot clearly see the proof of the

patient's recognising the wrong state of her own mind. The apprehension of losing her senses if the impaired condition of her sight, her attention, and her memory *continued*, is certainly no recognition nor profession of wrong mind—if by wrong mind Dr. G. means mental derangement. We conceive, also, that the above case was one of mania rather than melancholia. The ideas that her husband was unfaithful, and that her friends were attempting to poison her, were as insane ideas as any that emanate from an inmate of Bedlam. Neither was the process of cure that which would be proper or successful in melancholia—"seclusion and control." We do not suppose, however, that Dr. G. intends this case to represent one of melancholia, although the fear of dying certainly belongs to the disease. Our author remarks that if a physician were taken into the chamber of a patient whose mind had become disordered from lying-in or nursing, he would not be able to tell, by the mere condition of her mind, that the disease had originated in such causes. In some cases the phenomena bear a considerable analogy to those of delirium tremens—in others, there are cataleptic symptoms. A curious case of this last kind is introduced by our author, but is one of those previously published.

In giving an opinion as to the probable result of puerperal mania, there are two questions—is there danger of life?—how long will the disease last; and what chance is there of its becoming permanent? Dr. G. remembers the time when it was the prevalent opinion among eminent physicians, that puerperal mania was never fatal.

"Whilst I was attending the near relation of one of the most eminent and experienced of the provincial practitioners of this island, a letter arrived from him, begging the family, to have no fears, that he had seen many such cases during his long life and never saw one die; and even the late Dr. Baillie, when consulted about a case remarked, 'that the question was not whether she was to get well, but when she was to get well.' The latter patient died within a week after this prognosis. There can be no doubt that a very large proportion of cases of disordered mind in lying-in women and nurses ultimately recover, but it is equally certain that some of them die, and there are two modes of calculating the probability of death in any individual case; the one is to ascertain the proportion of deaths to recoveries in as large a number of cases as possible, the other is to endeavour to discover some symptoms, the absence or presence of which indicates safety or danger." 121.

As to the former of these modes, it is very difficult, we should say almost impossible, to procure trust-worthy information. M. Esquirol has made the proportion 6 deaths in 92 cases.—Dr. Burrows, 10 in 57. But to say that the probable mortality is 1 in 15, or in any other number, might do very well for an actuary at an Insurance Office—it would be a ridiculous answer in the mouth of a medical practitioner. An interesting question then presents itself—"are there no symptoms in this as in other diseases, by which to judge whether or no the life of the patient is in danger?" The following passage from the manuscript Lectures of Dr. William Hunter, is considered very valuable by Dr. Gooch.

"Mania," says Dr. Hunter, "is not an uncommon appearance in the course of the month, but of that species from which they generally recover. *When out of their senses, attended with fever like paraphrenia, they will in all probability die, but when without fever it is not fatal, though it (i.e. fever) generally takes place before they get well. I have had several private patients, and have been called in where a great number of stimulating me-*

dicines and blisters have been administered, but they have gone on as at another time, talking nonsense till the disease has gone off, and they have become sensible. It is a species of madness they generally recover from, but I know of nothing of any singular service in it." 123.

Making allowance for loose language and probably inaccuracy in the notes of extemporaneous language, and comparing Dr. Hunter's statement with his own experience, Dr. Gooch would extract from the above passage the following meaning:—

"That there are two forms of puerperal mania, the one attended by fever, or at least the most important part of it, a rapid pulse; the other accompanied by a very moderate disturbance of the circulation; that the latter cases, which are by far the most numerous, recover; that the former generally die. This agrees closely with my own experience. Cases 8, 9, 10, which terminated fatally were all attended by a very rapid pulse. None of those with a slow, or only a moderately excited pulse died. Some which were attended with a quick pulse recovered; but none of these were treated for paraphrenitis." 123.

There are some other circumstances to be taken into the account of prognosis; viz. the form of the derangement, and the period at which it occurs. Mania soon after delivery is more dangerous to life than melancholia beginning several months afterwards. Nights passed in sleep, a pulse slower and firmer, even although the mind continues disordered, promise safety to life. On the contrary, incessant pervigilium, a quick, weak, fluttering pulse, and all the symptoms of increasing exhaustion, portend a fatal termination, even although the condition of the mind may be apparently improved. In the fatal cases, the patients have died with the symptoms of exhaustion, but not those of oppressed brain, with a single exception.

But supposing the patient lives, how long is the disease to last? What danger is there of its permanency? Mania is less durable than melancholia—it is more dangerous to life—less dangerous to reason. The records of hospital practice afford us no data as to the probable duration of puerperal mania. Hospital cases are picked obstinate cases. Those which last only a few days or weeks, (which form a large proportion) are totally lost in the estimate of a Lunatic hospital. The tables of Esquirol, Burrows, Haslem, &c., "throw little light upon the question, and present a prospect unnecessarily gloomy and discouraging." Of the many patients about whom our author has been consulted, he knows only of two who are still, after many years disordered in mind—and of these, one had been deranged before marriage. In respect to the repetitions of the disease after subsequent pregnancies Dr. G. thinks there is very little predisposition left—but still a sufficient possibility of such an event to call for the utmost degree of care in all subsequent confinements.

We now come to the etiology of puerperal mania, as well as its essence or pathology. Leaving aside all discussion respecting "*that peculiar state of the sexual system which occurs after delivery*,"—and which we cannot satisfactorily explain, although we may be convinced of its existence as a predisposing cause of the disease in question, we are informed by our author that a large proportion of the cases (as far at least as his experience goes) have occurred in patients, in whose families disordered mind had already appeared.

"Among the causes of this disease, there are two others which require notice—the one a disordered state of the organs of digestion, the other weaning. As to the first, it was very manifest in some cases, in others less so. Mental derangement is said to be often produced by weaning, that is, by the sudden suppression of the secretion of milk. I have no right to deny the experience of others, but my own would never have led me to such a conclusion. Among the fashionable women of this town nothing is so common as not to nurse their children; the milk comes in about one or two days after delivery, and the breasts become as hard as stones, but not a drop is extracted; and sometimes by cold spirit lotions constantly applied to the breasts, sometimes by embrocations of oil and brandy, sometimes by poultices (according to the whim of the nurse, the patient, or the medical attendant,) with gentle aperients, the milk is suppressed in a few days. I must have known this done in more than a hundred instances during the first week after delivery, a time much more liable to disordered mind than a later period, and in not one did it occasion puerperal insanity. In all the cases which I have seen months after delivery, the weaning has been the consequence of the disease, not the disease the consequence of the weaning. The patients had been reduced in health by nursing, and their memories had become enfeebled, their spirits depressed, and their minds ultimately disordered; and they were directed to wean their children because they had neither milk nor strength to enable them to nurse." 130.

We shall find that this etiology is very strongly supported by Dr. Marshall Hall, from whose book we shall extract the following passage.

"There is a mixed case which shows itself under a still different form, from any which have hitherto been described:—it is *puerperal mania*. I believe this disease to result, in general, from all the circumstances following parturition combined; but chiefly from the united influences of intestinal irritation and loss of blood. I purpose to pursue this subject hereafter. In the mean time, however, I would observe, that I am persuaded that real puerperal phrenitis is comparatively a rare disease,—that puerperal mania is seldom of an inflammatory character, and that it is, especially, to be treated by those measures which are suited to the mixed case of intestinal irritation and exhaustion. This opinion is confirmed by the fact of mania occurring from undue lactation, as well as from the circumstances of the puerperal state. I am inclined to attribute much more to the combined influence of irritation and exhaustion, than to the mere 'state of the sexual system which occurs after delivery,' which has been assigned as the chief cause of this morbid affection by Dr. Gooch, in a most interesting paper upon this subject, in the sixth volume of the Transactions of the College of Physicians, p. 280,—although I would by no means exclude the influence of this principle altogether. There is ample evidence, in Dr. Gooch's cases, of the influence of intestinal disorder; and the events of labour, and the circumstances of lactation, ever add to this a state of exhaustion. This view is the more important, because it directly suggests the proper mode of treatment, which consists in restoring the system to a state of due health by every means in our power, whilst we adopt every measure which can soothe and allay the morbid irritability of the nervous system.

"I am confirmed in this view of the nature of puerperal mania, not only by a careful investigation of its causes, and the good effects of the remedies which I have mentioned, but by having met with the symptoms of intestinal irritation described in chapter V, as a prelude to those of mania." 253.

From the foregoing passage it will be evident that Dr. Hall does not exclude the peculiar condition of child-bearing from among the causes of puerperal mania, though he endeavours to trace the disease in many cases at least, to more tangible and explicable causes, namely debilitants and

depletives during or after delivery. This indeed, is the etiology, as far as we can understand it, which Dr. Gooch himself employs.

We next come to the proximate cause—"the morbid state of organization on which the disorder of the mind depends." Dr. Gooch very properly stigmatises the popular and professional disposition to attribute "raving of the mind to inflammation of the brain." Nothing can be more dangerous than such a doctrine, even in common, and, *à fortiori*, in puerperal mania.

"But experience and reflection lead to very different conclusions; they teach us that a disorder of the mind may be connected with very opposite states of the circulation, sometimes with inflammation or active congestion, for which depletion is the shortest and surest remedy; sometimes with an opposite condition of the circulation, which depletion will only aggravate.

"Cerebral excitement does not necessarily depend on inflammation or congestion, nor is depletion, however moderate, necessarily the proper remedy. Cerebral excitement is often aggravated by depletion; and in some cases, as I shall have occasion to relate, absolutely brought on by it. Now the question, what is the morbid state of organization on which puerperal insanity depends, must be determined in the usual way. There is only one safe mode of working the problem, by observing the causes which brought on the disease, the bodily symptoms which accompany it, the way in which it is affected by remedies, and the morbid appearances discovered after death." 132.

We shall glance at some of the cases here, in order to render this article as complete as possible.

Case. A lady became deranged a few days after labour, attended by an alarming hæmorrhage. When Dr. G. saw her, she was sitting up in a chair, looking from side to side, but unwilling or unable to answer questions. Her face and lips were colourless—pulse small and quick. Nothing was done but regulating the bowels, and she recovered.

Case. A lady was delivered easily, but the placenta adhered, and was separated by the hand. The after-pains were severe, and at length settled into a permanent pain and tenderness in the hypogastrium, with a sharp pulse of 116. The lochia ceased—she had slight rigors. An eminent physician considered it hysteritis, and for three days, blood-letting, both general and local, were freely employed. The pain and tenderness continued; but the patient was now so much reduced, that the lancet was suspended, and a consultation called. The result was a determination to bleed *usque ad deliquium*. The first cups were buffed, the others were not. Five were taken away before faintness was induced. At 4 o'clock next morning the nurse awaked Dr. G. saying her mistress was "much changed," and she thought her dying. He found her cold, clammy, with thready pulse, and pale sharp features. Her mind rambled. Warm wine and water was given in small but frequent doses, and next morning she was much recruited. The pain and tenderness of the uterus were gone. In the evening she was maniacal, with pulse 140. Some more wine was given, and she became calmer under its influence. Next morning puerperal mania was evident to all the medical attendants. In this state she continued some weeks, during which it was necessary to put on the strait-waistcoat. In a month she was convalescent from mania; but her abdomen swelled, and she died dropsical in eleven weeks after her confinement.

Dr. Gooch might have added, without much violation of probability, that the doctors were good friends to the undertaker in this case. They cured equivocal hysteritis—but they laid the foundation for the dropsy.

Case. Dr. Gooch went to see a lady who had become maniacal on the 7th day after delivery, and after unusually low living in consequence of some little fever. Dr. G. found her lying on one side, apparently engaged in deep thought, and quite inattentive to surrounding objects. She was in a profuse perspiration, pulse 140 and weak. She had spasmodic twitchings and picked the bed-clothes. Dr. G. was, at first a little doubtful of the nature of the disease. It had some resemblance to delirium tremens. In consultation it was determined to give 30 drops of Battley in two doses. Next morning Dr. G. was met with cheerful countenances, and the agreeable intelligence that the patient was "quite well." The second draught had thrown her into a sound sleep, from which she awoke with a calm clear mind, and a pulse of 80. We agree with Dr. G. that—"depletion would easily have converted this into a dangerous and perhaps fatal case." The following case is particularly instructive:

Case. "Mrs. — was delivered of her first child after a natural labour, attended, however, by rather more than the usual loss of blood. From the first her manner appears to have been excited and unnatural. Her nights became restless, her mind more excited, and about three weeks after her delivery she became maniacal. Her pulse was 140 before any active remedy was employed. She was put upon low diet, leeches were applied to the head, and she was freely purged with calomel and castor oil. The symptoms not abating, and the patient becoming very violent, a cupper was sent for, who took ten ounces of blood from the head by cupping-glasses, and the following morning I saw her for the first time. She was sitting up in bed in a straight-waistcoat. Whatever was asked her she did not answer, but repeated it like an echo, 'Have you any head-ache?'—'Have you any head-ache?' 'Put out your tongue'—'Put out your tongue'—she would not say any thing else. Her tongue was moist and pale—her pulse was between 120 and 130, small and weak—her bowels had been lately freely moved—her skin was not hot, her face was very pale—she had had no sleep for many nights. This being the state of things, I thought it a great object to procure repose. She therefore took twenty minims of the sedative solution of opium, and ten minims in a two ounce glyster every six hours. This procured six hours of uninterrupted sleep, and when awake she was more herself. Some symptoms led her attendant to employ another bleeding by ten leeches to the head, which was shaved, and a blister applied to the crown. When I saw her two days after my first visit, she had had in the night several hours of sleep, and was so much better in mind, that her friends were surprised when I told them that she was not out of danger. Her face was very pale, and her pulse so quick, small, feeble and fluttering, that I remarked to her medical attendants that she would not bear the loss of another ounce of blood. It was agreed that she should continue her small opiate glysters, and that care should be taken to supply her with sufficient nutriment; but the next day the symptoms of exhaustion became more alarming, and when one, of her medical attendants visited her in the evening, he found her pale, cold, breathing only at long intervals, and scarcely any pulse—she died that night. The body was opened the next day by two very experienced anatomists. The veins throughout the body were remarkably empty—the heart contained little blood—the lungs and liver were singularly pale. Within the head there was the same deficiency of blood in the veins of pia mater, and in the sinuses—under the arachnoid membrane was

a little serum. On slicing off the hemispheres the bloody points were unusually numerous." 140.

No man of the least reflection can hesitate to ascribe the death of this patient to the depletive measures which were employed—insanely employed.

Case. Our author accidentally saw a female who was sitting up in bed in a straight waistcoat, with a flushed cheek, a dull eye, and occasionally uttering unintelligible words. Her pulse was above 100. She was blooded that evening to faintness, which did not require more than eight ounces, and died in a few hours afterwards. On examination the viscera of the abdomen were found to be healthy, as was also the peritoneum. The internal and external surfaces of the uterus appeared natural. There was about half a pint of reddish serum in the cavity of the abdomen.

The following inferences which Dr. Gooch draws from the consideration of eleven cases detailed in the volume, (out of which we have selected the above,) we shall lay before our readers in the author's own words.

"Let the reader reflect on the leading points of these cases. In No. I. the disease occurred in a pale lady, without any heat of skin, or much quickness of pulse, and was not relieved by the loss of blood. In No. III. it occurred in one whose constitution was drained and enfeebled by nursing. In No. IV. it occurred in a pale woman, habitually hysterical, subject to bear dead children from want of power to afford them life for nine months. In No. V. it occurred in one who had been drained by flooding. In No. VI. in one in whom, for urgent reasons, the circulation had been reduced to the lowest ebb consistent with life. In No. VII. in one who had been living very low for a week, with such marked symptoms of the irritation of debility that at first sight I thought it was the close of some disease that had been overlooked. It was speedily relieved, not by cupping and purging, but by the tranquillizing and sustaining power of opium. In No. VIII. the disease was treated, though with all possible prudence and moderation, as an inflammatory state of the brain, by leeches, cupping, purging and low diet, yet the patient died, not with symptoms of oppressed brain, but with those of exhaustion; and on examining the body the whole venous system was found extraordinarily empty of blood. In No. X. the patient fell, as if shot, under the stroke of the lancet, and on examining the head there was found no effusion, and empty blood vessels. In No. XI. the disease came on after puerperal convulsions, a disease generally but not always depending on cerebral congestion, and after one of those enormous bleedings commonly practised in these cases, and no morbid appearances were discovered after death in the brain.

"These cases, if fair specimens of puerperal insanity, lead straight to the conclusion, that the disease is not one of congestion or inflammation, but one of excitement without power; I shall be asked, are not these picked cases, selected to prove a point, and forming a small proportion of those of another character? Their very number gives the negative to this suspicion: ten cases can never form a small proportion of the experience of one individual, however extensive his opportunities of seeing the disease may be; for puerperal insanity is not like fever, a disease in which an experienced physician counts his cases by hundreds. Dr. Wm. Hunter said, that in the course of his practice he had met with about twenty or thirty. There can be no mistake, unless by some extraordinary accident, all my cases have been exceptions to the general rule—an incredible supposition! It is true I have related those in which the nature of the disease was most distinctly marked, in which the truths I am endeavouring to explain were most legible; but in most of the remainder there was nothing to contradict these conclusions. It was the

same form of disease, only less marked and striking. They surely prove that those cases of puerperal mania which are attended by a very rapid pulse, which Dr. Wm. Hunter said generally die, and which he attributed to paraphrenitis, do not depend on this state of the brain, which requires depletion, but on a more exhausting excitation of the nervous system, which requires soothing and sustaining treatment." 147.

It would be ridiculous to conclude that a few bloody points in the cerebral substance, and a little serum under the tunica arachnoidea, (in one of the cases,) should authorise us to treat this disease as inflammation or congestion of the brain, when the symptoms, the mode of death by exhaustion, and the remarkable emptiness of the veins after death, gave the negative to the assumption. Dr. Gooch makes many judicious reflections on the use and abuse of post-mortem examinations. Morbid anatomy, to prove instructive, must be attended by two requisites.

"An eye familiar with the difference between natural and morbid appearances, and a mind capable of interpreting the hieroglyphic characters left by disease. These qualifications are never found, except in those who are, or at least have been, for a considerable portion of their lives continually employed in these examinations. A man whose experience in morbid anatomy amounts to five or six examinations in the year, is neither a competent witness of appearances, nor a competent judge of their meaning. To understand what these appearances mean, it is necessary to know the history of the case during life, the symptoms by which it was attended, and the way in which it was effected by remedies. Those pathologists who consider increased vascularity of the brain, and an effusion of fluid, however slight, as infallible signs that congestion or inflammation existed during life, and that depletion was the essential remedy, will do well to read Dr. Kelly's Paper on the Pathology of the Brain, and Dr. P. M. Latham's Account of the Epidemic at the Milbank Penitentiary." 160.

To the question, is there no such disease as phrenitis in parturient women Dr. G. answers that, according to his own experience, phrenitis, that is, furious delirium from inflammation of the brain, is a rare disease in child-bed. Inflammatory head-aches, attended with delirium, are occasionally met with, but these are very different from puerperal mania.

The 13th case in the work before us is interesting, as showing the extensive influence of morbid secretions on the organ of the mind—and indeed on the mind itself.

A sensitive female became maniacal a few days after her confinement, and a straight-waistcoat was necessary. Dr. G. found her with hot skin, full pulse, about 100—dark furred tongue—confined bowels—stools dark and offensive. Small doses of calomel and jalap produced but scanty motions, and no relief. She talked incessantly, and never slept. She was very violent. After three days some powerful aperients were given, which procured a very large evacuation, "nearly black, and horribly offensive," being as usual discharged into the bed without notice.

"It acted again an hour or two afterwards, but now the nurse, who was sitting by the bed-side, was surprised to see her turn round, and in a calm and natural manner request to be taken up as her medicine was going to operate; her waistcoat was immediately loosened and she was taken out of bed, when she voided a stool of prodigious size, as dark and offensive as the first, and then walked back to her bed calm and collected; we saw her not many hours afterwards; her waistcoat was off, she was lying

on her sofa perfectly tranquil, answered questions correctly, manifested no vestige of her complaint, excepting some strangeness in the expression of her countenance, and a timidity and abstinence from conversation which was not natural to her; she recovered rapidly and unimpairedly." 168.

It now remains to speak of the treatment of puerperal mania. So much, however, has been disclosed in the detail of the cases themselves, that our author has little else to do than collect the rules of conduct dictated by the cases, and put them in a compact shape.

"I. The constant attendants on the patient ought to be those who will controul her effectually but mildly, who will not irritate her, and will protect her from self-injury. These tasks are seldom well performed by her own servants and relatives.

"If the disease lasts more than a few days, and threatens to be of considerable duration, her monthly nurse and own servants ought to be removed, and a nurse accustomed to the care of deranged persons placed in their stead. Such an attendant will have more controul over the patient, and be more likely to protect her from self-injury. She should never be left alone, and every thing should be carefully removed with which self-injury can be effected; such as cutting instruments, garters, handkerchiefs, towels. The windows of her chamber ought to be carefully secured. With regard to the removal of her husband and relations, this also will be a question if the disease threatens to be lasting; it is generally right. Interviews with relations and friends are commonly passed in increased emotion, remonstrance, altercation, and obviously do harm; large experience, also, is decidedly favourable to separation as a general rule, yet there may be exceptions which the intelligent practitioner will detect by observing the effect of intercourse. The husband ought never to be left alone with his deranged wife, for obvious reasons. I have known more than once a neglect of this rule produce consequences which left in the minds of those concerned a never-ending regret. On this subject a serious appeal ought to be made to the sense and feelings of the husband.

"II. The next rule regards the diet of the patient. It ought never to be very low; the lowest ought to consist of nutritious and unheating fluids, such as equal parts of gruel and milk, or gruel and good veal broth, or milk alone; and of these a quart ought to be given in the twenty-four hours. If there is any heat or thirst the broth had better be omitted; but the cases in which this diet requires to be reduced are few; it even sometimes requires to be mended. If the patient is pale, and the temperature of the skin lower than natural, it is useful to add to the above diet two ounces of wine daily, mixed with gruel. When the patient is in such a state of mind as not to ask for support, and even object to take any, a thoughtless nurse will allow hours, and even days, to pass with no other food than a cup of tea or water-gruel, at long intervals—a neglect which I have known to be of serious consequences; but if the disease after many days continues unabated, a daily portion of solid meat may be necessary, and the rule for it is this: if there is nothing in the bodily symptoms, separate from the disorder of the mind, which forbids it, this state of the mind is no objection to, but rather an argument for it. Hospital patients are sometimes clearly benefited by a cup of caudle several times a day; but to them diffusible stimulants are more safe and necessary than to persons of temperate habits. After being long accustomed to a daily supply of gin, they come into a lying-in hospital, suffer pain, lose blood, live on water-gruel, and take purgative medicines. If mania attacks them under these circumstances, a moderate quantity of wine is sometimes strikingly beneficial. Thus I would manage the diet in mania which occurs soon after delivery; but when *melancholia* attacks a woman long after delivery, who has been drained and enfeebled by nursing, a nutritious and even cordial diet is necessary in all cases. She should take

meat every day, with about four ounces of wine. Cupping, low diet and purging would confirm her disease, and perhaps convert it into idiotism. Lastly, if mania at tack a woman after sudden weaning, so that there is reason to believe that the disorder of the mind has been caused by the sudden suppression of milk, (a case very different to that which I have last described, and one which I have not witnessed,) there would be reason to suspect an inflammatory affection of the brain; but this must be determined, and the treatment regulated, not by the disorder of the mind, but by the bodily symptoms which accompany it." 161.

III. The third rule relates to medicinal treatment. The remedial agents are—bloodletting—emetics and purgatives—anodynes—tonics and stimulants. In respect to the first agent, the result of Dr. Gooch's experience is decidedly against it in mania, melancholia and those cases which resemble delirium tremens. He does not say that cases never occur which require this remedy—but he has never met with them.

In regard to remedies for the evacuation of gastric and intestinal impurities, the activity with which they are to be employed, must depend on the distinctness with which these states are present. If the powers of the constitution are not low, and the gastric symptoms are well marked, namely, a foul tongue, an offensive breath, a yellow eye, an ipecacuan emetic may be given; but where the face is pale, the skin cold, and the pulse quick and weak, the depressing influence of vomiting is to be avoided.

When the stools are unhealthy, one or two active purges ought to be given—such as the compound aloetic pill, or the compound decoction of aloes. But where the gastric symptoms are slight, and the powers of the system much exhausted, active and prolonged purgation is injurious.

IV. SEDATIVES.

"The most valuable medicines in the treatment of puerperal mania are narcotics. If given at proper times and in proper doses, they often procure nights of better sleep, and days of greater tranquility. This calmness is most likely to be followed by some clearing up of the disorder of the mind. These remedies produce these salutary effects much oftener in the mania of lying-in women than in mania occurring under other circumstances; for it is more uniformly a disease of nervous excitement and debility. If the head is hot, the cheek flushed, and the patient thirsty, they ought to be postponed; but if these symptoms have been removed, or are not present, sedatives ought to be given, and the most efficient, first. After many days and nights passed in perpetual wakefulness, it is an urgent object to procure tranquil sleep. For this purpose twenty minims of the sedative solution of opium may be given at once, and repeated in two hours if the patient is not asleep; even a third dose may be given in two hours more if the first two doses have failed, but the cases in which opium has been most successful have required at most two full doses. When sleep has once been procured, small doses, such as five or ten minims, should be given at intervals of six hours. If these small doses procure sleep by night it is unnecessary to return to the large doses, but these may be used occasionally when the smaller doses fail. Constipation must be prevented by a daily dose of the compound aloetic pill or decoction, or, if these fail, by the compound extract of colocynth, which is made more soluble and active by mixing it with one-third of soap. If the sedative solution of opium should produce any of the ill effects which this drug is known occasionally to produce, such as head-ach, foul tongue, sickness, heat of skin, it should be discontinued, and the milder narcotics tried; of which the best is hyosciamus mixed with camphor; five grains of each may be given every six hours, but the night-dose should be doubled. It may be dissolved in an ounce and a half of camphor mixture. When once opiates have attained their objects they should be withdrawn, not suddenly, but gradually,

diminishing the dose, lengthening the interval, watching the effect of this abstraction of the remedy, mending the diet whilst withdrawing it, and returning to the old doses if the diminution of them occasions any unfavourable symptom." 166.

V. There are cases and times when stimulants or tonics must be given. The total absence of febrile symptoms, the paleness of the face, coolness of the skin, and feebleness of pulse will authorise the exhibition of a scruple of carbonate of ammonia, in four doses, at four-hour intervals. The time comes when opiates have been tried and are no longer necessary, or have failed. The disease threatens to last a long time, and the great object is to support the patient through a long and exhausting disease. This is best done by nourishing diet and the mineral acids, with or without bark or bitters.

VI. The last rule relates to seclusion and control.

"There can be no doubt that it is generally necessary and useful to separate the patient from all those persons who are sources of excitement of any kind. This, however, can be effected only in one of two ways—either in a separate house, or part of a house where the patient has no other associates but her nurses, or in a receptacle for the deranged, where she has no other associates than her nurses, and persons similarly afflicted with herself. This is the only society she has, excepting the short, and occasional visits of the physician. Thus the power of controuling her even by force, is placed in the hands, not of enlightened and benevolent persons, but of uneducated menials. I do not know how it can be otherwise, though I wish it could; but I think such a charge ought never to be placed in such hands without the most vigilant scrutiny of its exercise. There may be cases, or there may come a time at which some interruption to this solitary life may be advisable. When the disease has lasted long, when the patient expresses a strong wish to see some near friend, when she entertains illusions, which the sight of some one may efface, the admission of such person is worth a trial," 168.

There is no doubt that patients when recovering, or even when recovered, very often relapse, when too soon introduced to their friends. But these are not those whom our author here notices. The advice is given respecting those who have *not* recovered and are *not* recovering—who linger month after month without amendment, and whose mental delusions assume a shape accessible to moral impressions. An interesting case is related in illustration, to which the reader is referred.

Before concluding this article, we deem it but justice to state that a comparison of Dr. Gooch's Essay with the chapter on Puerperal Mania in Dr. Burrow's work, induces us to think that the former author has made free with the ideas of the latter, forgetting to acknowledge the source of the said ideas. Our closing limits prevent us from instancing many of these parallellisms:—but the following example will suffice.

BURROWS. "All emotions of the mind, it is evident, are capable of disturbing the corporeal functions; and, though in themselves moral causes, they become physical in their operation."—*On Insanity*, p. 22.

GOOCH. It appears, therefore, that emotions of mind are capable of disturbing the organs of the body; and though moral causes in themselves, they may be physical in their operation."—*On Puerperal Mania*, p. 187.

We do not positively assert that such parallellisms as the above, (and many more might be adduced) are not purely accidental; but we can only say that we have never known such accidents in the whole of our literary life.

VII.

TRANSACTIONS OF THE MEDICAL AND PHYSICAL SOCIETY OF CALCUTTA.

I. AN ACCOUNT OF AN EPIDEMIC MALIGNANT ULCER, OR HOSPITAL GANGRENE. By *J. Adam, M. D.*

II. ON GANGRENOUS ULCER. By *J. Leslie, Esq.*

FROM the occasional ravages of this destructive malady in military and indeed in civil service, it has justly attracted of late years a good deal of attention. It appears that malignant ulcer is of very frequent occurrence in India, where, as elsewhere, it often takes on an epidemic character, and proves a most intractable and cruel scourge. Dr. Adam, whose paper stands first upon the list, was led, on these accounts, to investigate the subject, and offers the statements to which we shall now direct our own and the public attention, rather with the view of eliciting information from his brethren, than claiming any credit for himself, or his opinions.

"In November, 1818," says Dr. Adam, "I entered upon the medical charge of the artillery division attached to the Nurbudda field force, consisting of a Company of Europeans, a native troop of horse artillery, gundawze and other details, amounting in all to between 7 and 800 men. Having been ordered to a distant station on particular duty, soon after assuming charge, I did not rejoin the artillery till the beginning of the following May. At that period, it may be said the troops, in cantonments at Hussingabad, the then head-quarters, were comparatively healthy. This state continued till the rains, when fever, dysentery, and rather numerous cases of Guinea worm (or *Naharoon*) occurred among the European part of my charge. The natives suffered but slightly from the first of these; and were not attacked at all by the others. It was about the middle of October, that the disease now under consideration first made its appearance, contemporaneously with the change of the monsoon, to which in a great measure I attributed its occurrence. In one of the earliest cases which fell under my observation, ulceration had proceeded to a considerable extent; and it was evident that the peculiar characteristic action had existed for some time previously. This sore was described to me to have been originally a mere pimple, or boil, which scarcely attracted notice: that it suddenly became painful, increased in size, and ultimately assumed the foul aspect which it then presented. Other cases were soon afterwards admitted, and in one or two instances it was found to have attacked patients who had been under treatment in hospital for ulcers in various parts of the body. At last not a sore was met with that did not exhibit the gangrenous character. It affected all the above classes of natives under my care indiscriminately, while only one European showed symptoms of the prevailing malady.

"The epidemic was not confined to the artillery division, but occurred also to a considerable extent in the 1st Battalion 8th Regiment Native Infantry, at that time forming part of the force. It appeared remarkable, however, that of the other native troops in cantonments, consisting of two Battalions of infantry, and one Regiment of cavalry, not a man, as far as I could learn, was attacked by it." 134.

The following is a graphic description of the disease as it then appeared, a description which cannot be abridged without injury.

"The first alteration observable in an ulcer attacked by the epidemic was the suppression of the accustomed discharge, and the color of the granulations changing from a reddish to a pale hue. This was quickly succeeded by loss of vitality in the

surface of the sore, with an increased action in the parts immediately around it. The sensibility of these became greatly augmented, and an acute burning sensation was substituted for that simple feeling of pain or tenderness common to all healthy granulating surfaces. Fever supervened; and the patient exhibited in his countenance the most urgent distress.

"This suffering aspect formed a striking feature throughout the disease; and the degree of excitement in the ulcer itself, seemed by no means proportioned to the pain, and general disturbance of the system, of which the expression might be deemed an indication. The progress of the sloughing was rapid, but less striking than in common gangrene. The destruction of parts extended equally in all directions, passing deeply into the cellular membrane and muscles, as well as spreading over the skin, being always preceded by a somewhat rounded and reddened, (as far as this change could be discerned in the cutaneous texture of a native,) and slightly everted border, not unlike the sphacelating sore occasionally met with in *Lues Venerea*. The color of the mortified parts was a dusky gray; and the discharge which exuded from them, or was removed with the dressings, exhibited a similar appearance. But very little humor of any kind was secreted; and it appeared as if a sudden death had seized the parts, without the intervention of the process of suppuration, or the serous effusion observed in ordinary cases of gangrene. The odor arising from the decomposition of the sloughs in the progress of the disease was offensive in the extreme; but at the commencement no peculiar smell was perceptible. As the sloughing advanced, the pulse became quick and particularly hard; the skin hot, and the tongue furred; of a deep white colour, but not loaded. The general symptoms at this stage were such as mark a high degree of the remittent fever of the natives. The sphacelating process extending its ravages, large pieces of flesh were destroyed, and removed with the scissors, and the muscles and bone underneath became exposed to view: nor did the blood-vessels always escape; and hæmorrhage in one instance occurred to an extent that was truly alarming. In place of the usual sloughs, clots of coagulated blood were now found lying on the dressings, and the surface below pale, and dotted with a few bloody points; which while they indicated the source of the hæmorrhage, by acting as plugs on the open mouths of the vessels, served also for the time to repress it.

"Such was the general course observed in the cases that came under my treatment. In no instance did death ensue, and recovery to health in most of those where the disease was subdued, might be deemed comparatively rapid, and was equally announced in the improved appearance of the sore, and the expression of the patient's countenance. The sloughing process was no sooner arrested, than granulations of a beautiful florid red shot forth from the bottom and sides of the ulcer—sleep, and an appetite for food returned, and all the natural functions were again performed as in health."

137.

Some cases of the disease are briefly detailed, but after the above description of its characters and progress, they need not be inserted here. Some etiological considerations, however, must not be disposed of in so summary a manner. That portion of the valley of the Nurbudda which was occupied by our military posts at the time, is formed by the Vindhya range of hills on one side, and the gondwana on the other, extending in length through a space of nearly 300 miles. The approach of the hills on either side contracts its breadth in many parts, but, in general, it may be reckoned at from 15 to 20 miles across from one mountain chain to another. The Nurbudda River holds its course through the valley to the northern side, and the country on its banks, with the exception only of the middle part, is every where rude in the extreme, and covered with forests of deep jungle. The soil consists of a dark coarse earth, the product of decomposed trap and amygdaloid, and from the great superabundance of argillaceous matters in its composition, moisture is both greedily absorbed

and long retained. In the dry months the evaporation which necessarily follows must tend to mitigate the heat, and other causes also combine to render the climate of this part of India comparatively mild throughout the year, and peculiarly "raw" in the cold season. The officers' bungalows in the cantonments were built quite close to the river, and the lines of the sepoy's extended for a mile and a half along a small elevation or ridge, which gradually sloped to the open parade ground in front. The two extremities of this line were occupied by the 8th N. I. (which corps, as has been stated was attacked by the epidemic,) and the horse artillery; whilst about the centre were stationed the artillery hospitals, of which Dr. Adam was in charge. These three situations were the most exposed of any in the cantonments, and after the change of the monsoon, the prevailing wind was received the more directly, and with more effect, than in any other part of the line. To this circumstance Dr. Adam is inclined to attach much importance, as well as to the influence of the same causes which create the general disposition to fevers of the intermittent kind, common to most districts of India on the accession of the cold season. Certain it is, that the only other prevailing disease among the artillery was intermittent fever, generally of the tertian or quotidian type, which yielded readily to bark, and the means had recourse to. In the cases of ulcer, however, it is remarkable that the sloughing character never supervened to the fever, but the fever to the sloughing; and in no one instance did it exhibit any *regular* intermittent character.

"Although, therefore, I feel disposed to attribute the malignancy of the sores, with their consequent constitutional irritation, and the intermittent fever to one and the same cause, namely the supervention of the cold weather, and the change of the wind, which from the mild S.W. suddenly altered to the chilling, and as the sensation certainly indicated, damp N.E.; I do not believe that there was any necessary connection between the two forms of disease, or that either alternated during the period of their prevalence with the other. I am the more anxious that this should be understood, as the beneficial effects of the practice which I ultimately adopted might be ascribed to its removing the fever by some *specific* action, and thus indirectly curing the ulcers.

"On the Europeans, accustomed to a generous diet and warm clothing, the injurious influence of the causes now assigned was scarcely experienced: but in the case of the natives, indifferently clothed and fed, and at the time very wretchedly accommodated both in their lines and at their hospital, their operation must have been exerted with full force, and their effects severely felt accordingly. How far the wind may have brought with it any peculiar noxious impregnation from the jungles over which it blew, such as is generally known by the term *miasmata*, I cannot pretend to say. I do not deem it necessary even to adduce the probability of such an additional source of the malady, as in my opinion the simpler causes enumerated were quite sufficient for its production; and have been found to give rise to it in other situations." 145.

We now arrive at an important portion of the paper, that in which the treatment is discussed. Stimulating local applications, with the internal use of bark, opium, nitric acid, wine, &c. were successively employed and successively failed. It is a curious fact that the arsenical solution given internally proved of no avail, but that used as a topical means, diluted with one half water, it produced the most happy effects in a case in which it was employed. Whether its success would have been equal upon further trial, could not be put to the proof, as unfortunately the stock of the medicine

failed, and no fresh supply could be procured. The charcoal powder and bark appeared to render the ulcers cleaner, but the success of these and of other means would seem to have been trifling at the best. Change of air was now resorted to, and comfortable tents were pitched on a spot about half a mile to the westward, but here again the medical attendant was doomed to experience a bitter disappointment, for the men got daily worse. By a series of reasoning, which we need not follow seriatim, Dr. Adam was now led to exhibit mercury, that dernier resort in every doubtful or desperate case. One fact, as has been often said, is worth a hundred bushels of argument, and therefore, we shall simply state to our readers the results of the Doctor's experience with the drug.

"I accordingly commenced giving calomel in the dose of 10 grains, and $\frac{1}{2}$ grain of opium, three times a day, and continued it till the mouth became sensibly affected, which I think generally happened between the third and fourth day. I need not add how gratified I was to find, that from the moment this occurrence took place, all the symptoms abated. The patients for the first time expressed the relief they experienced from pain and general febrile irritation; and almost immediately the sloughing ceased, and was succeeded by a line of healthy granulations. The change in some of the cases was most rapid and striking, and in almost all, so marked, as to leave no doubt in my mind of its having been brought about by the curative powers of the remedy; and I congratulated myself, that by its means I was at length enabled successfully to contend with the disease. As far as I can now call to mind, only one case obstinately resisted the powers of the mercury; but what was the issue of it, I am unable to state, having soon after relinquished medical charge of the Division. The turpentine dressings were continued as a local application after the favourable alteration occurred; and in a short space of time, the whole of the sloughs were cast off, and the sores reduced to the state of a simple healthy ulcer. All that appeared necessary now, was to moderate the action of the mineral on the mouth, and support the strength of the patient. But in no instance, did pytalism prove severe, nor was any particular treatment found necessary to effect the latter object. In the restoration of the digestive powers, with a corresponding appetite for food, nature pointed to the most effectual mode of repairing the loss of flesh and strength; and excepting weak Cherayta infusion, which was I believe not always swallowed by the patients, I did not prescribe any further medicine. The men gradually regained their former healthy appearance, and at the period I left the Division, were, with one or two exceptions, in a fair way of resuming their respective duties." 150.

Dr. Adam has had no subsequent opportunity of putting the value of mercury to the test in this disease, but Dr. Guthrie, his successor with the Artillery Division, found it useful both with that, and afterwards with a native corps at Baitool, in the cure of the same kind of malignant ulcer. Dr. Guthrie, however, exhibited the drug more sparingly than our author, and in the form of blue pill, combined with rhubarb. So many circumstances combine to obscure and to vitiate the actual effects of remedies in disease, that much experience and many trials are necessary to establish their value or the reverse. On these accounts we dare hardly pronounce that Dr. Adam has adduced convincing proofs of the real powers of mercury in sloughing ulcer. The question must yet be considered *sub lite*, but we are sure that the profession, and our Indian brethren in particular, will feel much indebted to Dr. A. for directing their attention to the remedy.

We now arrive at the paper of Mr. Leslie, on the same disease, though occurring at a different time and in a different portion of the Indian territory. This subject is one of such practical importance, that Mr. Leslie's contribution differs so much from the preceding author's, that we should not be

doing our duty by the public if we slurred it over in a hasty or superficial manner.

In 1823, the 65th Regiment of B. N. was raised for general service at Dinapore, and in December, 1824, our author was appointed to the medical charge of the corps. At that time, the average number of patients in hospital was seventy, the majority eruptions and slight intermittents. In February, 1825, the regiment marched to Barrackpore, when much sickness prevailed, chiefly obstinate bowel-complaints and intermittent fevers, with some few cases of extensive sores, but none of a malignant character. In July they left Barrackpore for Prince of Wales's Island, at which Presidency they arrived in the middle of August; and, on the 1st of September, the number of sick in hospital was 123, of which cases 10 were ulcers. The latter cases rapidly increased, and in the month of November four died. In December they amounted to ninety, the greater number of gangrenous character, and fresh cases continually occurring, a committee, composed of all the medical officers at the Presidency, assembled in January, and agreed on a report to Government, recommending the removal of the sick to an elevated station, and the substitution of flour, sugar and sago, for their ordinary rations, rice and *dholl*. Beer and wine were also to be expended at the superintending surgeon's discretion.

"These measures were speedily adopted, and in the end of January, one hundred cases of ulcers were removed to two spacious temporary buildings, erected for the purpose on the summit of one of the hills. On the removal, the men generally expressed themselves as feeling better; and several of the sores which had been sloughing for weeks in the hospital below, became clean, and were ultimately cured. The more severe cases, however, seemed to sink more rapidly than before; and in February 11 died, the mortality of the preceding month having been nine. For some weeks after the removal of the sick, no fresh cases had sloughed; but about the beginning of March, ulcers now commenced in several of the cicatrices, rapidly progressed, attended with much fever, great pain, and very quick pulse, and in several cases proved fatal, after extensive gangrene had taken place. No fresh cases being admitted to hospital during February from the lines, the total number in hospital being consequently much diminished, on the weather proving unfavourable, and the supply of water being deficient, and several severe cases of bowel-complaints occurring, the establishment on the hill was finally broken up in April; and the remaining cases, now reduced to 30, returned to the line hospital.

"Five legs were amputated in March, two of which cases died: four were removed in April, of which two also were lost. The cases of ulcers now in hospital being only about 20, and free from any unfavourable character, the malignancy of the disease appears to have wholly subsided—(May 20th.)" 154.

After these general and preliminary remarks, Mr. Leslie proceeds to consider, seriatim, the topography of the island in the immediate vicinity of the cantonments, the medical history of the disease; its etiology, and, finally, its treatment.

Fort Cornwallis is situated at the extremity of a tongue of land, stretching to the opposite Malay coast, from which it is distant from one and a half to two miles. It is bounded to the westward by a range of high hills, which from a triangular and level area 20 to 30 square miles in extent, and comprising the town and military cantonments, the former extending for about a mile along the shore. The outlet of a small river less than a mile from the fort, the inundations of the neighbouring ground by the tide, the general abundance of jungle over the area, and the collection and stagnation of

water after heavy rains, conspire to make the tract in question peculiarly favourable, one would think, for miasmatal exhalations. Nearly three miles inland from the fort, a space, above a square mile in extent, has been cleared for parade, and in its vicinity are the European and Sepoy hospitals, both in a very decayed condition; and although raised seven feet from the ground, the floors are in such a state as by no means to protect the inmates from the effluvia from beneath. The vicinity of the hospitals is very damp and the same may be said of the lines in which the men are lodged, whilst the latter were, till lately, very much crowded. So much for the topography of the spot in which the disease broke out, and it does most certainly appear not ill adapted for the rise and spreading of any epidemic.

MEDICAL HISTORY.

When the cases first began to excite serious apprehension, the following symptoms were observed.

"A sore which had for a period been indolent, or even disposed to heal, would begin to ulcerate, some parts becoming excavated, the discharge vitiated, the edges becoming elevated and everted, and in some cases undermined. At this period, unhealthy sores generally showed a disposition to become circular and very painful. In this state they would continue for a time, deriving perhaps slight temporary benefit on each change of application, but on the whole becoming worse, and more extensive sloughs from time to time were thrown off, the exposed surface appearing clean for a day or two, and then assuming a foul appearance. Emaciation was progressive, but no very marked febrile affection was constantly attendant. At length, frequently after weeks of suffering, the patient died exhausted, without much change in the sore: in other cases, sphacelus to some extent occurred before death took place.

"2. After some weeks experience of the disease, cases of a different type occurred.

"A sore would occasion great pain, and on examination a small black spot would be observed in the centre; or in other cases, the slough for several days after its appearance would continue of a light grayish colour, but uniformly advancing. These cases were almost always attended with severe constitutional disturbance, hot dry skin, urgent thirst, and frequent pulse. The slough in a short period covered the whole sore, and rapidly extended, in several cases, from the foot or ankle to nearly the knee, before death occurred: the whole limb in many cases, resembling a piece of charred wood, there being little or no discharge." 156.

The symptoms in all cases were not quite uniform. In some, the patients lived until after the sloughs had been thrown off; in others, no such separation of the dead parts took place. In some the general fever kept pace with the local complaint, and the patient became comatose before death; in others, the senses were retained to the last, and nothing but extreme prostration of bodily power was observed. Sometimes ulcers commenced with the characters first described, and ended with those of the second type.

"3. At a subsequent period, a third species of sore appeared, affecting the cicatrices of ulcers, which had either entirely or very nearly healed. Ulcerations would commence and go on for days, exciting perhaps during that period, not much attention on the part of the patient (whose general health for a time did not appear to suffer,) but steadily resisting every application, and becoming progressively worse. A purplish livor of the surrounding integuments was usually present in these cases, but for a time but little pain was experienced; nor, as before remarked, did constitutional symptoms shew themselves till the sore had made some progress. Diarrhoea then supervened, the dejections were

fetid and loose, the patient became feverish, and the pulse frequent. In several cases of this species, sphacelus, to a considerable extent, occurred before death: in one case, the limb was successfully removed." 157.

Mr. Leslie observes that, although insurmountable difficulties arose in forming a decided opinion on the constitutional symptoms, yet he has no hesitation in affirming that the disease was *not* contagious. If this be true, the disease was certainly different from most of the epidemics of hospital gangrene, of which any published accounts have been given. Where the sores occurred in the vicinity of tendons, they almost invariably sloughed to some extent, and this was the case with the tendo Achillis in several instances. The sores were usually situated on the ankles, heel, or lower third of the legs, but three proved fatal on the thigh, and one man died from gangrene in the groin originating in bubo. The bones in many cases ulcerated, and not unfrequently exfoliated. In four patients mental derangement supervened; the first occurred after amputation, lasted for three weeks and then subsided; but the three others underwent no operation, and continued insane. In two of the latter, however, the hallucination appears to be gradually giving way.

ETIOLOGY.

It appears that in this, as in most other maladies, a variety of causes conspired to produce the pernicious effect. In the first place, it is well ascertained that natives of the Western provinces invariably suffer severely with bowel-complaints, fevers, and foul-sloughing ulcers, on their removal to our eastern settlements. In the present case, this already powerful source of disease was augmented and enforced, by the circumstance of the greater part of the newly-raised regiment consisting of young men, many, indeed, mere boys of 16 or 18 years of age, who scarce possessed a coverlet on which to lie, and thoughtlessly exposed themselves to the vicissitudes of the climate and indulged in fruit, and cheap, unwholesome fish. The rations, too for several months, were extremely deficient, and the men, in consequence, were obliged to subsist on rice alone, with indifferent vegetables, dressed in oil, without a due proportion of spice. The state of the hospitals and medical topography of the cantonment we have fully noticed already, and need not advert to them any further than merely to observe, that they necessarily formed very powerful links in the chain of causation. It is a curious, but not uncommon fact, that the improved rations of flour, sugar and sago, allowed by Government, were not received with any thing like gratitude by the men. The sago they would not generally use, and, at length its distribution was obliged to be restricted to those who consented to employ it. It is constantly thus, that the benevolence and humanity of medical men are repaid by distrust and ingratitude in other climes than the "land of the sun," and by other more civilized patients than the ignorant and prejudiced Hindoo!

TREATMENT.

The following are the author's remarks on the local applications, and they shew most amply in our humble opinion, that however useful each or all of these may occasionally be, they are quite as often of no avail. We have seen ourselves the powers of compound tincture of benzoin in checking rapid and destructive sloughing, and the balsam of Peru has also proved of great service in epidemic hospital gangrene. Mr. Leslie, however,

employed both, and, it seems, without experiencing that marked good effect which the same means have had in other hands. This is one of those occurrences in medicine, which should teach us to beware of generalizing too boldly from the limited observations of individuals.

"In describing the first appearance of the disease, it was remarked, that sores became foul, and sloughed, with but little constitutional disturbance: on this account, and at this period, unremitting attention was paid to the application and effect of local remedies: of these, generally and extensively used, may be enumerated the following. Poultices of *papeeta*—of charcoal with *taree*.* Bals. of Peru—Tr. Benz: et Aloes Comp.—Tr. Myrrhæ, Terebinth: Venet. Lin: Terebinth. Ung: Hyd: Nit: Ox: rub: resinos. Lot: Sulph. Acet: cupri. Nit. argenti. Acid Nit. dilut. Lot. nigra, &c.

"As to the utility of these, a very few remarks will suffice. Poultices were not useful. The Bals. of Peru failed in producing a healthy action in the sores, though it certainly possessed considerable power in correcting their fetor. The different tinctures did no good; though, mixed with a proportion of turpentine, they answered better than the ointments, which were very sparingly used, excepting resinous or common ointment, placed above, but dipped in some other dressing.

"Regarding local applications, none on the whole appear superior to the common lotion of nitric acid diluted; this, however, was borne stronger than it is generally directed to be applied. (dr. iss. oz. xxiv.) In particular cases, the Terebinthine liniment, black wash, and solution of lunar caustic, as also the same in substance, were advantageously employed." 163.

Two other applications, certainly of very opposite character, were employed, although not to a sufficient extent to set the results above suspicion. These were, the steam of hot water, and the undiluted nitric acid. The former in the cases in which it was tried seemed to give relief by its soothing effects; the latter did service in some cases, completely failed in others, and in a very few, a single application arrested the sloughing, and the sores healed. Of the general treatment we must inform our readers in the author's own words, as we cannot easily abridge the passage.

"It now remains to mention the means had recourse to as general remedies: these necessarily varied with the type of the disease, and at different periods various remedies became requisite. As already mentioned at the commencement, the sloughing process was slow, the patient lingered long, and seemed at last to be worn out with constant suffering. To obviate these symptoms, the secretions in general were attended to, the bowels kept open by the purgatives in common use, and no more nutritious diet was advised. During the months of December and January, the disease, which had been gradually becoming more extensive, now also assumed a more serious aspect. Gangrene, when it took place, was extremely rapid in its progress; these cases being attended with a frequent small pulse, and dry harsh skin; frequently little or no discharge took place from the sore; occasionally a few vesications formed, when the parts were dead underneath. Several of these cases sank without diarrhoea, though others suffered severely from this symptom: in not a few it only occurred a very few days before death. During the greater part of the above period, no medicines or remedies, either general or local, appeared beneficial. The unfavourable local circumstances have already been adverted to. Of the remedies used are to be mentioned, mild purgatives, opium in various forms and combinations, (rendered urgently necessary by the severity of the pain,) and the warm bath, which certainly gave relief, and for a time appeared to lessen the dryness of the skin. In January beer was allowed to several of the worst cases, some of whom relished it; and it seemed to protract

* "The fermented sap of the palm, called the *Tax* or *Toddy-Tree*."

the life of some, who eagerly took it. About two-thirds of a bottle, given twice, at noon and bed-time, daily, was the usual quantity: few wished to take more. Those who were so weak as to be unable to swallow so much liquid, had wine, from two to three glasses daily.

"Some of the cases certainly derived advantage from these means; but they never produced the good effects which were anticipated by the Committee.

"The objection of the natives to post-mortem researches is well known, and up to this period only one body had been examined. Feeling, however, the imperious necessity of this measure, the bodies of two men who died in February of rapidly progressing gangrene, were examined. In one, as in the first case, much structural derangement of the alimentary canal was discovered; but in the other, no organic lesion found. In both, during life, the symptoms had displayed much resemblance. In subsequent examination, however, the mucous membrane of the alimentary canal, particularly of the colon, seemed to bear the onus of disease. From this period (February) calomel combined with opium was more systematically administered, though certainly for a time with but little success. The form which appeared to answer best was a combination of Dover's powder, seldom less than half a drachm, to 4, 6, 8, or even 10 grs of calomel. This dose was given at bed-time, and if the pain was urgent, opium was also given during the day, sometimes with calomel, blue-pill, ipecacuanha, or antimonial powder, and sometimes without any of these. In several cases the mouth became affected, in some followed by permanent, in others only temporary benefit, and in a third set with no very marked effect, either favourable or otherwise. The purgatives in general use were jalap, rhubarb, castor oil, and infusion of senna: beer and wine were more sparingly administered, and the infusion of gentian with sulphuric acid substituted instead. Those who derived benefit from its use, of course were allowed to continue it. Towards the end of February, a case was sent from the line hospital to the hill, which afforded a favourable opportunity of trying the effects of it. The patient was stout and robust, the sloughing sore situated exactly on the ligamentum patellæ, and the joint felt somewhat hot and swollen; much pain was experienced. 20 ozs. of blood were taken away, the coagulum of which was firm, but showed no buff. In three days the sore became clean, and the man recovered. Several other cases, in which the febrile action ran high, were moderately bled, (to the extent of 8, 10, and 12 ozs.) in none with any bad effects: even in some who derived no ultimate benefit, temporary relief was obtained from a painful sense of throbbing. In the use of this remedy, though likely to prove beneficial at the onset, where much febrile action is present, and before the patient's strength is reduced, the greatest caution must be observed. Impressed with the belief, that the constitutional symptoms were such as to forbid all prospect of advantage from operation, no attempt had been made to save any of the cases by this measure until March, when a case occurred, attended with less constitutional disturbance than usual, and in which the limb was removed, and the man was discharged well in 23 days. As the operation was borne well, it was resolved to give the chance to another case then in hospital, and which was most evidently sinking, from inability of the constitution to heal so extensive an ulcer as existed. Contrary to expectation, this man survived: and three more limbs were removed in the course of the month. One of these operations was done, however, solely in compliance with the urgent supplication of the patient, and proved unfavourable. One other case also died. In both, extensive disease existed. From causes already detailed, the establishment on the hill was finally removed in April; and after the return of the cases to the line hospital, four legs were amputated in this month, two of which recovered. These operations, except perhaps the first, which promised success, were done under exceedingly unfavourable circumstances: nevertheless five out of nine, or rather, out of eight, having recovered, proves, (in one the stump healed by the first intention, and the man speedily regained flesh and strength,) that this measure, without hesitation, and under like circumstances, may be adopted with a reasonable prospect of success." 168.

It appears that amputation was performed in nine cases, five of which did well, certainly not a discouraging result.* It does, however, seem strange, and, to our minds, contrary to every thing like principle, that amputation should succeed in this disease. Here we see malignant ulceration grafted on the simplest wounds and even scratches, whilst it does not succeed the larger and more dangerous injury inflicted by the knife. It is just one of those puzzling facts in medicine, that contribute to its uncertainty and its empiricism. We have now concluded our analysis of Mr. Leslie's observations, for the remainder of the paper which is occupied by individual cases and numerical returns, we need not particularly notice. Every contribution to the history of so formidable a malady as that under consideration must be read with interest by our brethren, particularly by those in military, naval, or colonial service, whose hap it may be to encounter "the foul fiend" in all his horrors. In this country we are generally free from the inroads of these pestilential distempers:—

"Flaming carbuncles and noisome sweat,

"And clammy dews, that loathsome lice beget;

"Till the slow-creeping evil eats his way,

"Consumes the parching limbs, and makes the life his prey."

VIII.

CONTRIBUTION TO THE PATHOLOGY OF PHLEGMATIA DOLENS. By Robert Lee, M. D., &c. &c.

SUCH is the modest title of an interesting paper by Dr. Lee in the last volume of the Medico-Chirurgical Transactions. As Dr. Lee observes, there is perhaps no subject on which a greater difference of opinion now prevails than "on the pathology of phlegmatia dolens." By the way, the term pathology is strangely misapplied, for we see it continually used to express the anatomical characters of the disease, which is certainly incorrect. Morbid anatomy is a much more expressive as well as more precise expression. Dr. Lee goes on to remark that, the papers of Mons. Bouillaud, Dr. Davis, and Mons. Velpeau, first threw any light on the *real nature* of the disease, although he allows that they have not been sufficient to establish the *venous* origin of phlegmatia dolens. Since the Essay of Dr. Davis, published in the XIIth volume of the Medico-Chirurgical Transactions, the cases recorded in this country in support of the views of that gentleman, have been singularly unsatisfactory, and this consideration has led Dr. Lee to bring forward those which we now propose to notice.

Case 1. Mrs. J——, at 31, was delivered of her fifth child on the 10th March, 1827, after a protracted labour, accompanied with severe pain shooting into her left thigh and leg. After the labour, this pain entirely subsided, and all went on well till the 14th. She then began to suffer from a sense of pain in the left groin and calf of the leg, with numbness

* The total number of cases admitted into Hospital between September 1st and April 30th, 1826, a period of eight months, was 281, of which died 40, being one to even and one fortieth, or fourteen and one-fourth per cent. very nearly.

in the whole left inferior extremity, and a slight tumefaction in the situation of the inguinal glands, where pressure occasioned great uneasiness. Occasional rigors—tongue furred—much thirst—bowels open—pulse 80—flow of milk and lochia natural. On the 16th the pain was more severe, particularly from the groin to the knee on the inside of the thigh, where a swelling of a glistening white appearance was observed. On the 19th, the pain had diminished, but the swelling had greatly increased and extended to the leg and foot, which were both very tense and did not pit on pressure. The skin was not discoloured—the pain was relieved by moderate flexion of the limb. On the 24th, the pain was greater, the pulse quicker, the skin hot and moist, the patient extremely irritable and desponding. On the 25th, Dr. L. saw the patient for the first time.

"The whole extremity was much swollen, the intumescence being greatest in the ham and calf of the leg. The integuments wore a uniform smooth shining appearance, having a cream-like colour, and everywhere pitting on pressure, but more readily in some situations than in others. The temperature to the touch did not differ from that of the other limb, though she complained of a disagreeable sensation of heat throughout its whole extent, and much pain was experienced in the upper and inner part of the thigh on moving it. Immediately below Poupart's ligament, in the situation of the femoral vein, a thick, hard cord, about the size of the little finger was distinctly felt. This cord, which rolled under the fingers, and was exquisitely sensible, could be distinctly traced three or four inches down the thigh in the course of the femoral vessels, and great pain was experienced on pressure, as low down as the middle of the thigh in the same direction. The pulsations of the femoral artery were felt in the usual situation below Poupart's ligament; pressure over this vessel excited little or no uneasiness. Pulse ninety and sharp. Tongue much furred.—Thirst urgent. Bowels confined.—The lochial discharge had nearly disappeared." 135.

Lecches, cold lotions, cathartics, and anodynes were the means employed, and with success. For two months, however the limb remained so feeble, as to disable her from walking, and continued larger than the other. Eleven months after the attack, her general health was restored and she again became pregnant, but on the 5th of November, 1828, after having given birth to a still-born child, she sank from uterine hæmorrhage.

Dissection. "The whole of the left inferior extremity was considerably larger than the right, but no serous fluid escaped from the incisions made through the integuments, beneath which a thick layer of peculiarly dense, granular adipose matter was observed. The common, external iliac and femoral veins and arteries, enclosed in their sheath, were removed from the body for examination. The common iliac with its subdivisions, and the upper part of the femoral veins so resembled a ligamentous cord, that, on opening the sheath, the vessel was not, until dissected out, distinguishable from the cellular substance surrounding it. On laying open the middle portion of the vein, a firm thin layer of ash-coloured lymph was found in some places adhering close to and uniting its sides, and in others clogging it up, but not distending it. On tracing upwards the obliterated vein, that portion which lies above Poupart's ligament was observed to become gradually smaller, so that in the situation of the common iliac, it was lost in the surrounding cellular membrane, and no traces of its entrance into the vena cava were discernible. The vena cava itself was in its natural state. The entrance of the internal iliac was completely closed, and in the small portion of it which I had an opportunity of examining, the inner surface was coated by an adventitious membrane. The lower end of the removed brain was permeable, but its coats were much more dense than natural, and the inner coat was lined with a strong membrane, which diminished considerably its calibre, and here and there fine bands

of the same substance ran from one side of the vessel to the other. The outer coat had formed strong adhesions with the artery and the common sheath. The inguinal glands adhered firmly to the veins, but were otherwise in a healthy condition." 137.

The foregoing appearances were evidently those of inflammation at a remote period of time, and not of recent disease. A lithographic sketch is subjoined which shows the condition of the vein.

Case 2. Mrs. P—, æt. 27, of a delicate constitution, had been affected, during the last two months of pregnancy, with œdema of the right inferior extremity, a varicose state of the veins, and pain in the inside of the thigh and groin, especially severe at times in the latter. On the 8th of December 1827, she was delivered, after a tedious labour, of a healthy child, and during the succeeding week felt unusual pain in the hypogastrium, and right iliac and inguinal regions. The pain then remitted but returned again on the 20th with augmented violence, and was followed on the 21st by rigors, pyrexia, and stiffness with swelling of the whole right inferior extremity. On the 22d, Dr. Lee first saw her, (the patient belonged to Mr. Grant,) when the extremity, more especially the leg, was much swollen, and the integuments of that part were tense and elastic, but pitted slightly on firm pressure along the front of the tibia. This was not the case in the thigh, but exquisite pain, aggravated by pressure, existed in the course of the femoral vein, which felt in the groin as if enlarged, rolling, hard, and incompressible beneath the finger. The pain extended upwards and downwards in the line of the great vessels—the temperature of the limb was increased—the pulse 112—the skin hot—tongue white—nausea—much thirst. On the 25th, all the symptoms were increased—the right labium pudendi was much swollen—and the integuments of the limb were pale, shining and pitting every where on strong pressure. Next day a similar affection was observed to be commencing in the left extremity, and on the 27th there were fulness and severe pain in the left iliac region, and the swelling of the leg and temperature were increased. No enlargement of the femoral vein could be felt, but yet there was exquisite pain in its course through the groin and upper part of the thigh. On the 28th, the swelling of the right extremity having diminished, the indurated vein could again be felt in the groin, though the pain there was not much abated.

"The left extremity is swollen, stiff, hot and painful, and cannot be moved, its integuments are white and pallid, and pit on strong pressure. The left labium pudendi is similarly affected. The femoral vein is felt enlarged and indurated in its passage through the groin;—intense pain marks its course down the thigh to the point where it leaves the ham—in this latter situation pressure produces much suffering, as it does down the whole posterior part of the leg. The parts of the limb out of the course of this vessel and of the great superficial veins are comparatively much less painful than on the lower and anterior part of the thigh; for several inches above the knee firm and continued pressure is borne without complaint. The countenance is pale and sunk. The pulse rapid. There is great irritability and prostration of strength." 141.

On the 29th, the swelling in the last affected limb was so much augmented, that the femoral vein was obscured as it had been in the other limb.—The pain and tumefaction, however, gradually subsided in both extremities, the general health improved, and on the 12th February no pain whatever was experienced, the lower limbs being merely very weak, and the ankles and legs slightly swelled. No induration or enlargement could be felt in the course of the femoral vessels. The leeches, anodyne fomenta-

tions, and cold lotions, constituted the local treatment—purgatives, opiates, and low diet, according to circumstances, the general. The patient was seen at various times by Dr. Sims, Mr. Arnott, and Mr. Prout. From a foot note it appears that Mrs. P. is still under Dr. Lee's care, and that the symptoms general and local make it highly probable that the iliac and femoral veins on both sides, are partially, if not entirely, obstructed.

So much for the foregoing cases which are certainly amongst the most satisfactory of those that have lately been brought forward. The presence of phlebitis in one was established beyond dispute by post-mortem examination, and in the other no reasonable doubt of its existence can be entertained. We also allow that the cases were fair examples of phlegmatia dolens, which is more than we can say of many others which have been published under that head. Here, however, our admissions for the present stop, nor are we by any means compelled by the evidence adduced to alter our expressed opinions on Dr. Davis's theory, respecting the venous origin of the disease. Neither two nor twenty such cases would suffice to establish phlebitis as the cause, the peculiar cause of the disease, especially when analogy furnishes strong arguments against the assumption.

It is rather singular, that after the present paper of Dr. Lee's had been read, he met with three cases which induced him to comprise them in an appendix to the memoir, as well as to modify somewhat his views. In the main essay he observes as follows :

"From the preceding facts, as well as from the cases to which I have already alluded, we may, I think, safely conclude, that inflammation of the coats of the iliac and femoral veins in puerperal women does unquestionably give rise to all the phenomena of genuine Phlegmasia Dolens. It remains, however, for future observers to determine, if this venous inflammation be the only cause of the disease, or if cases do not occur wherein the other textures are primarily affected. I may observe, that hitherto no instance of Phlegmasia Dolens has been met with where the glandular, lymphatic, or cellular tissues of the limb have been found diseased; without the veins being also in a morbid condition.

"Whether the inflammation of the coats of the veins in this disease be simple adhesive inflammation, or inflammation of a specific kind connected with the puerperal state, and differing not only in degree of intensity, but in its essential nature from phlebitis after venesection, it is difficult to determine. The peculiar character of the symptoms seems strongly to favour the latter opinion, though it cannot be denied that the disease occasionally assumes the form of common phlebitis, fatal cases having occurred, where pus has been found secreted by the internal coats of the iliac veins, and death caused by inflammation and apostematous deposits of matter in the lungs and other remote organs of the body." 145.

The appendix, however, opens thus.—

"Since the preceding paper was communicated to the Society, the three following cases have come under my observation, in which though an inflammatory affection of the veins undoubtedly existed, yet that degree and kind of swelling of the inferior extremity did not take place, which is considered to be characteristic of Phlegmasia Dolens. In all these cases the phlebitis commenced with pain in the situation of the iliac and femoral veins; but in the second, the inflammation, instead of pursuing the course of the femoral vein down the thigh, appeared to have been arrested at the junction of the saphena interna with this vein, and to have proceeded along the trunk and branches of the superficial vessels to the foot. All these affections of the lower extremities which I have witnessed, I am disposed to regard as varieties of the same

disease, and to attribute the absence of general swelling of the limbs to the slight degree of inflammation and obstruction which existed in the iliac and femoral veins." 146.

So we see that the fact of the existence of phlebitis without phlegmatia dolens is as we stated, though the Doctor ventures to account for it, by considering the inflammation to have been too slight for the production of that disease. Almost the whole of the cases of phlebitis which we have witnessed have been fatal, and to them Dr. Lee's conjecture must evidently fail to apply. We are arguing not for victory, but truth; and the remarks which we have deemed it our duty to make, have originated only in a belief, whether right or wrong, of the insufficiency of Dr. Davis' hypothesis. We shall be equally pleased whether it ultimately *prove* to be correct or incorrect, as in either case science will be the gainer, and we shall be convinced.

We can only find space for one of the cases contained in the Appendix, but the three are so much alike, that each supplies a tolerable sample of all. We shall take at random the second on the list.

Case. Mrs. —, æt. 37, was delivered on the 14th February, 1829, and on the 21st was attacked with pain in the left inguinal region, which extended during the two next days along the inner surface of the thigh and leg to the ankle. On the 23d, the pain was so acute on the middle of the tibia, about an inch from its inner edge, that she applied some leeches to the spot. The pain was soon succeeded by a diffuse swelling in this situation, and, on the 25th, she complained of great weakness in the whole lower extremity, and pain along the inner surface of the thigh and leg. The trunk and principal branches of the internal saphena were enlarged, indurated, and very painful on pressure, and much swelling obtained in their whole course. The integuments, however, though hotter than on the outer surface of the limb, did not pit upon pressure. All was right in the direction of the femoral vein, and along the outer surface of the limb there was neither swelling, increased heat, nor sensibility. The general disturbance was slight, except when the pain was severe, and then it was of short duration. During gestation she enjoyed good health, but observed the veins of the left lower extremity to swell much more than those of the right. On the 27th, much tenderness was experienced in the course of the femoral vein, which, however, could not be distinctly felt. On the 1st March, the swelling along the saphena, especially in the leg, was increased, and its branches both in the thigh and leg were hard, knotted, and very painful. The integuments along the inner surface of the thigh and leg were hot, but retained their natural color, and did not pit, except along the front of the tibia.

"March 10th. She suffers much more from pain in the leg, particularly along the exterior surface from the ankle to the knee joint, where several indurated branches of veins can be felt. The whole leg is now affected with a considerable degree of swelling, without increased heat or tension of the integuments. The branches of the internal saphena vein in the thigh are still hard and painful, and the femoral vein is now perceived to be enlarged and indurated under Poupart's ligament, though but little sensible when pressed. The limb is extremely feeble, and great pain is produced by attempting to extend it." 150.

On the 18th the leg and ankle were œdematous, and the extremity was very weak. The coats of the saphena were still thick and indurated, though perfectly free from pain. The general health was good.

He who can see in the details of the above case much more than a common attack of chronic inflammation of the saphena vein, must be of a very *phlegmatic* habit indeed. We return many thanks to Dr. Lee for the pleasure derived from perusing his interesting paper, which is drawn up with modesty, perspicuity both of thought and language, and good sense.

IX.

MEDICO-CHIRURGICAL TRANSACTIONS, VOL. XV. PART I.

OBSERVATIONS ON LOCAL DISEASES, TERMED MALIGNANT. By Benjamin Travers, F. R. S. &c. &c. Part I.

No one who observes with attentive eye the signs of the present times, professionally speaking, can fail to remark the increasing taste for morbid anatomy and pathology in this country. Time was, 'tis not sixty years since, when the growth and use of the articles in question were almost monopolised by France, and the English practitioner was lamentably deficient in the knowledge of disease afforded by the scalpel and the saw. We will not deny, indeed we cannot, that a portion of the old leaven still sticks to many and the bigotted routinist is yet to be found, who professes to know little and care less about morbid anatomy and post-mortem examinations. With him the *interest* of a case is, in the Hudibrastic acceptation of the term, "just what it will bring," and when the breath is out, the patient is consigned for good and all to the undertaker and the earth-worm! We fear, however, that this sacred band is thinning daily, not so much, we allow, by desertion, as the ruthless scythe of Father Time, lopping sage after sage from its ranks. The great majority of the profession, are however, of a temper somewhat different from the select few that oppose all reform in science as innovation, all innovation as mischievous error. But we possess amongst us those who are sinning on the other side, who advance too far instead of too little, and would seem to regard the stores of information gradually formed by the labours and the labourers of twenty centuries, as so much rubbish, to be *shot* as soon as possible, in order to make room for the showy structures of modern days. These rash men, these Caliph Omars in their way, who would burn the learning of antiquity because it is not in their Koran, are ten times more active, and therefore more dangerous than the drones.

We have no wish to figure as enthusiasts, nor to rate the discoveries of the moderns for more than they are worth, but still we have no hesitation in expressing our belief that the science of medicine is improving in spite of both the parties to whom we have alluded. Neither can it be denied, in our opinion that the main source, the *fons et origo*, of that improvement is to be found in the cultivation of morbid anatomy, in other words the structural alterations that constitute disease. Much has already been obtained, and much is yet to be got, by diligently following this track. It is on this account that we have always endeavoured to place before our readers the researches of pathologists more fully, perhaps, than any contemporary journal of medicine, and we trust that we have not been altogether unprofitable labourers. At the same time we have been cautious to point out the dangers and delusions that must necessarily ensue from trusting too implicitly even to morbid anatomy. There are things in heaven and earth that pass our philosophy most woefully, and the phenomena of disease are assuredly amongst them. He who imagines that post-mortem researches will make all clear at the bedside, will find himself egregiously deceived, despite of the confident and somewhat arrogant declamation of certain writers of the present day.

We were led to the foregoing remarks by the subject of the paper to which we shall direct the attention of our readers. Observations "On the Local Diseases Termed Malignant," is a title which promises but little in a curative or practical, but much in a pathological point of view. Mr. Travers is already so favourably known to the profession, as an author and a surgeon, that nothing from us could raise his reputation in either character. Whether the present paper will prove a worthy descendent of those that have previously sprung from the same pen, the public at large must decide. The *fiat* is with them, and we now proceed to place before our brethren, very many of whom will never peruse the original memoir, the materials whereon to form their judgment.

Mr. Travers, in the genuine Horatian style, rushes at once *in medias res*, and begins by informing us that chronic local diseases may be divided into tractable and intractable. Mr. Travers allows that the division is too general—we think it is fundamentally bad. A chronic disease may be tractable at one time, intractable at another; or it may be intractable merely from situation; or peculiar circumstances, general or local—in short the exceptions to such a division are so great as to eat it to the very kernel.—Why not, we would ask, be contented with the old-fashioned terms of malignant and non-malignant? We all conceive that we understand them, and that is a point of some importance. Mr. T. observes that a disease may be intractable in its *nature*—first, from its depending on a poison absorbed, as the venereal; or on a bad state of system, as the scrofulous; or a *chachexy* made up of both. Secondly, "from its being a disease of a part which, when it has reached a certain stage, generates a poison and thus diffuses its species and destroys contiguous textures, so that after this stage is reached, however complete its apparent extirpation or destruction, it is liable to re-appear." Thirdly, from its being a disease of the constitution shewing itself primarily and exclusively in tumours, bearing a similar character, in various parts of the body, and proving within a short period destructive to life, in despite of the earliest interference.

Such are our author's definitions of diseases intractable in their nature, and if ever proof was wanting of the sandy foundation of nosology, these very definitions would afford it. The two latter classes are stated to embrace cancer, and they evidently do so. The first comprehends syphilis, scrofula, and their combinations; yet why these two diseases should enjoy such favour we cannot very clearly see. Surely the sore, or the node, or the eruption of syphilis is not *necessarily* intractable in its nature, and if *accidentally*, the whole passage is palpably absurd, for a property cannot at the same time be accidental and inherent in the nature of a thing. We hate cavilling, but would recommend Mr. Travers to re-write the commencement of his paper.* To do him justice he appears to feel the pressure of his incubus, for he quickly drops the term intractable (a bad one in every respect) and proceeds to the consideration of "the diseases termed malignant," i. e. incurable, and leading sooner or later to the patient's destruction.

* The fact is that it had better be omitted altogether, for assuredly it explains nothing, leads to nothing, has no natural connection either with the title or the body of the paper, and is only a clumsy kind of prologue after all.

It becomes a serious question whether a disease be malignant on its first appearance, or grows so in the course of time, having arisen under circumstances favourable to the attainment of malignity. If the former be the fact, it is, *à principio*, a disease of the constitution, whence alone the character of malignity can be derived. The following views are just, but they must be *studied* to be perfectly understood; *reading* them is not enough.

"It is conceivable that a simple local *disease* may become malignant by the influence of the constitution upon it, as a simple fever may become typhoid or putrid, but a strictly local affection cannot be malignant. When we speak of the decided malignity of a tumour, or ulcer, we mean to say, that it is such a disease of the system shewing itself in a part. When we say that it has a malignant aspect or resembles a malignant tumour or ulcer, we mean that it is analogous to those in which the constitution, sooner or later, takes such an action. We cannot well conceive of malignity, as the exclusive or innate property of a part. A change of structure, whether of increase or loss of substance, which not only resists every remedy, but which, being extirpated or destroyed, is reproduced either in the vicinity or at a distance from the original site, is certainly not, in strictness, a local disease. But if from any local cause a sore refuses to heal, or falls into gangrene; if by the extension of the ulcerative process blood-vessels are opened and fatal hæmorrhage ensues; if by the profuseness of a secretion the patient dies exhausted; if by the incessant irritation of the nervous system, or the morbid actions set up in vital organs under a protracted symptomatic fever, life is extinguished; the disease does in no respect imply a malignant nature, though often so considered, malignant diseases being subject to a similar termination. It is to incurableness from causes not local, and consequently the disposition to appear in more than one part at the same time, or to reappear when the first affected part has been freely removed, that the term malignity is applicable.

"If a local disease were from its earliest germ impressed with a malignant character derived from a morbid matter in the constitution, it would be so much a constitutional disease, that the removal of it could never be urged on the ground of permanent benefit. To one species of malignant disease this character is applicable, as I shall explain hereafter.

"But although a local disease, strictly speaking, cannot be malignant, it is clear that a disease, altogether local in its commencement, may in its progress stir up an action of the constitution which imparts to it that character, or a malignant constitutional disease may only show itself in a part.

"Again, constitutional malignancy may not shew itself in any part by a specific organic change, as is the case with some poisons and contagious fevers; whereas the disease of a part must derive its malignant property from the constitution." 199.

The inference drawn from the preceding observations, is this; that the scirrhus tumour may be, "and undoubtedly is," in the first instance, a local and single disease. The proof of the assertion will be found, according to our author, in the record of "a thousand instances of the early and complete removal of the disease, without threat of return during many years of the patient's after life." This may even be the case under otherwise favourable circumstances in the ulcerated stage. We laud Mr. Travers's premises, but dissent in a great degree from his conclusions respecting the non-malignity of the scirrhus tumour. It is a flattering tale that we are told, but sad experience compels us to attach tight faith to the thousand successful operations for cancer upon record! If Mr. Travers can but prove the soundness of his views respecting cancer, he will assuredly

confer a boon upon science and humanity, that must immortalize his name. But we dare not hope it. Mr. Travers writes that "*to incurableness from causes not local, and consequently the disposition to appear in more than one part at the same time, or to reappear when the first affected part has been freely removed, that the term malignity is applicable.*" Surely the scirrhus tumour answers to these characters. However, our author considers the question more fully farther on, and we drop the discussion for the present. We shall meet again at Philippi!

"We may consider carcinoma as a genus of the order 'malignant diseases.' Its species are 1st the scirrhus, 2d the medullary. Their respective modifications and varieties are to be referred to those of structure. The first has been also called the 'hard' or the 'stone' cancer—the second, the 'soft' cancer, 'fungus hæmatodes'—'encephalodes'—'melanodes'—'fungoid inflammation'—'medullary sarcoma,' &c. &c. according to its varying phenomena of colour and consistence. The inconvenience of a change, or a multiplicity of name, is far greater than the retention of one that might admit of improvement. Medullary is the most descriptive and comprehensible definition; I shall therefore retain it." 201.

Whether Mr. Travers does well in considering scirrhus and medullary sarcoma, or fungus hæmatodes, as species of the same genus, carcinoma, we shall not take upon us to determine. Certainly all the forms of malignant degeneration evince a very marked disposition to run into one another, and scirrhus and fungus hæmatodes have been found to exist at the same time in different parts of the same individual. Notwithstanding this, however, we had rather not lump them together under the indefinite term of cancer, because they materially differ in structure, progress, and even malignity. In our own opinion, nosological arrangements of local diseases throw open a door for vagueness both of observation and description. If a man considers many affections as merely varieties of one, he is naturally apt to attach less importance to their discrimination, by which means pathology, and ultimately perhaps even practice, is the sufferer. Our author proceeds to treat at length of the *scirrhus cancer*, or in common parlance, *schirrus*.

It originates in some or other description of secretory structure, as 1. the follicles of the mucous membrane; mouth, fauces, stomach, and intestinal canal: 2. of the reflected integument at the orifices of the uterus, vagina, anus, urethra: 3. of the skin, especially where they most abound; as the face, scrotum, prepuce: 4. the secreting glands termed conglomerate, as the lachrymal, salivary, mammary,—the liver, pancreas, testicle: 5. the lymphatic, absorbent or conglobate glands. Mr. T. is not aware that it originates in other textures, and proceeds to consider the cause of the exclusive liability of secretory structures to scirrhus. Passing over the theories with which he contends, and which it must be owned, are unsatisfactory enough, we must mention the one advanced by himself.

"Glandular organs are the seat of scirrhus, because they are more abundantly than other parts supplied with vessels whose office is the separation and combination of new materials from the circulating fluid; and it is sufficiently probable, that when, having been habitually and actively employed, they cease to be so, these vessels make preternatural deposits, and expend their energies wantonly as it were, upon new and useless structures. This seems to me to be the origin of the scirrhus tubercle. The

dilatable tissues—those most subject to changes of capacity under great diversities in the quantity and impulse of the circulation, and necessarily furnished with a very abundant cellular tissue, common or proper—are peculiarly subject to originate scirrhus.

“ But it must at the same time be admitted, that the disease often arises in those individuals, in whom the organs most frequently visited by the complaint have not been subjected to extreme variations of capacity, as in the virgin female,” 204.

We fear that Mr. Travers' bullet has scarcely hit the mark much closer than its predecessors. The cessation of secretion is a condition of things which seldom obtains in any cases of scirrhus but that of the female, at the termination of the catamenia. How is cancer of the lip, &c. in men, to all appearance healthy, explained by this theory? Mr. Travers having dwelt upon the *seat* of scirrhus, next considers the *time* of its occurrence. He remarks its rarity before the forty-fifth year, its prevalence in females at “ the turn of life,” and seems to hint obscurely at a coincidence between it and the osseo-cartilaginous deposits in the coats of the blood-vessels, deposits which, with other changes in the body, may be viewed as climacteric, and evince the decline of the circulating power. Such changes he imagines to be connected with a sluggish and feeble, perhaps obstructed state of the capillary, vascular, and absorbent circulation.

“ *Structure of Scirrhus—External characters*—hardness with increase of weight, inelasticity or toughness in some cases, knotty or craggy induration in others. Circumscription, and mobility beneath the skin in its earliest stage, but not to such a degree in the subsequent bed as to allow of the fingers passing beneath the tumour, and turning it edge upwards. Next, i.e. in the second stage, close adhesion to the tegument, and such incorporation with the glandular organ in which it is seated, as to have no mobility but that of the gland itself upon the parts beneath. The adhesion of the skin, either stretches or partially retracts and puckers it, according to the smooth or unequal surface of the tumour, and to the close or loose attachment, and particular conformation of the integument at the spot, as for example, next the nipple and at a distance from it; or beneath the mucous membrane of the pylorus or rectum, and the common integument of the body. Third stage: Contraction and diminution, by pressure, of volume in the gland as the tumour increases. Abrupt projection of one large coloured tubercle, sometimes of several smaller tubercles or nodules. Irreducibleness of volume and hardness by topics or medicine.—Transient pains, which have been hitherto obscure and occasional, now more distinct and frequent, like the pricking of a sharp instrument, with a sense of heat or burning. Dusky or livid red colour of the skin, with resplendent tension. Excoriation or cracking of the skin at the summit or base of the tubercles, and fungous elevations, with ichorous and sanguinous oozing.” 207.

Mr. Travers justly observes that no one or two of the foregoing symptoms are diagnostic of scirrhus, but that the assemblage of the whole must be admitted to describe it and nothing else, although they constitute only the external characters. There is a tumour met with in the breasts of young women, resembling a shelled walnut in size and nodosity, of stony hardness, and irreducible by pressure, mercury, iodine, or blisters. It depends on enlargement and partial adhesion of the lactiferous tubes in a cluster, and must not be mistaken for scirrhus. Mr. T. has also met with a deep-seated, partially elastic swelling, with an uniform smooth surface, in consistence like cartilage, not painful, but gradually increasing and involving

by adhesion the skin and the neighbouring parts. In this state it is a solid, unyielding, immoveable mass, which shows no disposition to suppurate, and is quite irreducible. It occurs in all ages, and often destroys life by compression of the first passages, as the larynx, œsophagus, &c. Upon section, it resembles the ovarian tumour, or the "potatoe-tumour" of the uterus; the osteo-sarcomatous tumour of the ribs, ossa innominata, and other bones. It has a dense and uniform interior. Mr. Travers does not mention in what structure this tumour has its origin.

"Internal Characters of the Scirrhus Cancer. These, though presenting some variety, are more to be depended upon (than the external). In the first stage, on section, a tough, inorganizable, and pretty compact mass, of a white and yellow brown colour, smooth and moistened by a slightly unctuous fluid; its consistence is not uniform, being hard in the centre, so as to form a nucleus. The circumference is defined by the termination of red vessels forming a vascular boundary. Upon floating in water, and still more by a certain maceration, the texture opens so as to bring into view concentric areolæ, having their interstices filled by a white granular matter, which may be picked out from the meshes.—These areolæ are crossed by faint white lines, at irregular intervals, in the direction of radii from a centre, visible to the naked eye, and very conspicuous under a magnifier, giving the section some analogy to that of a lemon.

"In the second stage, when inflammatory action commences, and is announced by shoots of pain, the relative firmness of the centre and circumference of the tubercle becomes reversed, the centre being pulpy or broken, while the circumference retains its firmness. The surrounding parts are now found to have lost their natural elasticity by condensation of texture, and partake of the firmness and weight of the scirrhus, giving considerable apparent increase of volume to the tumour, which is now less defined at its margin, and, in fact, of a compound character. The dense opaque white lines which, traversing the tumour in the direction of radii, diminish in density as they proceed outward, and are lost in the extreme circumference of the gland, are not the production of disease, but the septa which divide and support the lobules of which the gland is composed, in an opaque and thickened state. Within the wall of the tubercle, one or more cysts, containing a dark yellow or coffee-brown fluid, are sometimes met with, but are often not present.

"The above appearances are characteristic of the genuine scirrhus. The softened and broken down nucleus bears little analogy to the appearance of imperfect and casous suppuration in the centre of diseased mesenteric glands, or other scrofulous swellings.—The peculiar firmness of the exterior; the entire absence of inflammatory effusions, membranous lymph, and purulent matter; and the involvement of surrounding parts in the same compact and indurated state,—cellular membrane, skin, and even muscle,—are sufficient to distinguish it. The lymphatic glands in the vicinity are enlarged, but present a very inferior degree of hardness, and on section are found to have retained their natural colour and structure for a considerable time. The septa are conspicuous, as before described, and eventually, the centre and surrounding parts undergo the same change as was observed in the texture originally affected. By extension, no parts are excepted from contamination in the progress of a scirrhus; but neither the mammary, the lymphatic, nor other glands have any original substantive share in the disease,—it is a new and interstitial deposit." 210.

Our author brings forward the scirrhus tubercle of the liver, exemplifying not merely the insulated formation of the disease, but its stages and progress. But to proceed with the thread of the description, the ulcerative process at length opens the tumour where the cracked and livid integument, previously exuding a sanious ichor, is most prominent, and partial sloughing of the integument sometimes assists in enlarging the external opening.

"Suppuration now takes place in the surrounding cellular membrane, and as granulations spring up luxuriantly from the sides, the centre of the tumour gapes and becomes a cavity more or less considerable. The granulations have a spongy or fungoid character, and are so elevated and broadly everted as to give the appearance of additional depth and breadth to the sore. As the sloughing process enlarges and deepens the centre, the disease becomes exceedingly offensive, and although granulations continue sprouting circumferentially at the same time, they have not the power of maintaining their vitality. It is in vain that we attempt to preserve the ulcer from foulness and fetor by detergent applications; we can render it clean, but in a day or two the newly cleansed surface ulcerates afresh, instead of advancing towards cicatrization." 212.

The wound of the operation (supposing such performed) heals kindly, but after a time an indurated tumour steals into notice at the angle of the cicatrix, or near it, and again marches on like the original growth. Mr. T. observes that in no one stage is there any analogy to scrofulous action, a sentiment to which we must all respond. A chronic abscess of the breast has been frequently mistaken for scirrhus, and not long ago we saw a breast removed in consequence. It occasionally forms between the gland and the pectoral muscle, "when it lifts the gland, and may be felt obscurely at its edge."

"In scirrhus it is not suppuration which, as in scrofulous and other tumours, brings the disease to the surface, nor does the external skin ulcerate, until after the scirrhus. Its first and proper action is within itself. Encompassed by a dense wall, the centre breaks up by ulceration, constituting the state of occult cancer. Indeed the scirrhus is seldom removed so early as to be found with its nucleus unbroken. A sudden and extensive gangrene has been known to eliminate the disease completely, and upon this principle the cautery, arsenic, and other corrosives, are sometimes successfully employed by cancer curers. Mr. Cline had a patient in St. Thomas's Hospital many years ago, in whom the sloughing process went on spontaneously under a linseed meal poultice, to such extent, that the wound afterwards healed soundly. I have seen more than one case in which extensive cicatrices of ulcers existed with much puckering and stretching of the skin of the chest, and no vestige of the breast remained. In one of these the patient, a lady residing in Berkshire, resisted the pressing advice of a consultation of London surgeons to allow of the extirpation of the tumour many years since. She has been in the constant habit of taking the medicine then prescribed, the extract of hemlock, almost *ad libitum*, with which she supplies herself regularly from Apothecaries' Hall. She is still a stout, healthy-looking person, as formerly, and attributes her cure to the medicine." 214.

Mr. Travers alludes to the occasionally dormant condition of the scirrhous tumour, even to the close of the patient's life, and cites a case of his own in illustration. The occasional, though certainly too rare, removal of the scirrhus by sloughing, and its remaining through a period of many years inoffensive to the system, are considered by our author as "additionally conclusive as to the original strictly local character of the disease." Sometimes the ulcerative action, instead of excavating the breast, creeps upon the surface, and converts the entire front or side of the chest into a warty or tubercular ulcer, discharging profusely thin and acrid matter whilst the subjacent tumour is large, hard, and immoveably fixed. In these cases the sufferings are great, the skin is "charged to saturation with the poison, a pimple, mole, or leech-bite being often converted into a tubercle, and not unfrequently the opposite breast becomes affected, and an inflamed absor-

bent or a chain of small tubercles extends across the sternum from one to the other." In other cases there are oblong folds and furrows of the skin, looking extremely like cicatrices, and depending, in our author's opinion, "on an interstitial, instead of ulcerative absorption, and partial but firm lines of adhesion between the skin and the pectoral muscle." The permanent obstruction or obliteration of the absorbents, together with the disease of the lymphatic glands, gives occasion to that enormous œdematous swelling of the inferior parts, which is among the last symptoms of this dreadful disease.

MEDULLARY CANCER.

The differences between this and "Scirrhus Cancer," are so briefly and well pointed out by Mr. Travers, that we cannot do better than transcribe them.

"This species, also a morbid growth, differs from the scirrhus cancer, 1st. In its property of affecting any or all the textures without exception, skin, bone, muscle, fascia, tendon, ligament, nerve, membrane and gland of each description, blood-vessel, and all the viscera and organs of sense.

"2d. In travelling as much by the blood-vessels as the absorbents of the part, and therefore not affecting contiguous parts only, but remote districts of the body; structures altogether dissimilar, and often, many at the same time.

"3d. In external characters—which, however modified by structure, situation, and connection of parts, are the reverse of those of scirrhus, the tumour having a degree of elastic softness which conveys a sensation of fluidity, a uniform roundness, and a volume far exceeding that of scirrhus, and, in short, more resembling a deep collection of matter.

"4th. In internal characters—being uniformly lardaceous on section, or pulpy, or semi-fluid, and intimately blended with original textures, i. e. deposited in their interstices and proper cellular tissue. By its seat it is modified in consistence, being in bone of so much firmness as to be osteo-sarcomatous in appearance; also in colour, as in the eye and some other parts, hence the term 'melanodes;' and in the limbs where it reaches a formidable magnitude, being mixed up with the coagula of blood which has escaped from the veins destroyed by it, 'hematodes.' The extreme states of a fresh and a decomposed brain present its different degrees of consistence; and its colour upon section is either opaque white or black, or a mixture of the two, a mottled grey and brown, or cineritious.

"5th. It differs last, but not least, from the scirrhus species, in being the disease of early rather than advanced life, and from the first a truly malignant and therefore a constitutional disease." 217.

It cannot fail to be remarked, that many theoretical notions are mixed up with the enumeration of purely structural distinctions in the foregoing passage. Take, for instance, the second head, where the medullary cancer is said to differ from the scirrhus, in "travelling as much by the blood-vessels as the absorbents of the part, and therefore not affecting contiguous parts only, but remote districts of the body, &c." It is obvious that this is mere speculation, and neither supported by, nor capable of, proof. The explanation, too, of the occasional *melanoid* colour and *hematoid* consistence, by the *site* of the tumour, will not bear investigation.

Like scirrhus, the medullary cancer is unconnected with a suppurative process, but its characteristic action is first adhesive, then ulcerative, and seldom associated with gangrene. At the same time, we would observe that the medullary tumour occasionally sloughs, and that to a considerable

extent, a process which, though not identical with mortification, is yet allied to it. Mr. Travers remarks, that he has never known a patient survive this disease, after its removal by the knife, for a longer period than four years, and instances several cases illustrative of the observation. We can bear our testimony to the comparatively rapid return of this disease after the operation, and no doubt the voice of the profession will echo our author's melancholy prognosis.

The scirrhus cancer also develops itself at times, in remote organs, after the removal, and without the return of the external tumour, but by no means so often as the medullary disease. When a scirrhus tumour has passed into ulceration, the operation is seldom successful.

"There is, however, a great and obvious difference in the sympathy of the constitution with scirrhus in different individuals. I should say there were two classes of cases, one in which the constitution might either be supposed to labour with the *materies morbi* before its local manifestation, or which, by the general and simultaneous failing of the functions of health, appears to invite or to be incapable of resisting the assault. As when mental disquietude, bodily fatigue, impaired digestive power, wasting and muscular flaccidity, sallow and haggard countenance, prurient affections, or erythematous inflammations of the skin precede the accidental discovery of a small lump in the breast. In precisely such a case I was consulted, within six weeks from the discovery, by a widow lady of 57 years, who had suffered from a domestic affliction severely a year before, and upon immediate conference with Mr. Cline, the opinion given was decidedly adverse to the operation, although the local circumstances were yet as favourable as could be conceived. She died within two years, the disease running through all its stages.

"In the other and more frequent case, the actual enjoyment of health appears not to be incompatible with the slow progress of scirrhus even for years, of which the pain or rather uneasiness is so inconsiderable as scarcely to draw attention to it. Somewhat suddenly it becomes more uneasy from increase of size and weight, a short acute darting pain with a flush of heat is experienced at lessening intervals, and although the health is not very noticeably disturbed before the skin inflames and threatens, or begins to ulcerate, yet, in despite of strong animal spirits, there are obscurer indications to the medical observer, in the sallow complexion and lack-lustre eye, the languor and frequent head-ach, defective appetite and rest, with transient heats and wandering pains in different parts of the body, and especially in the loss of volume and firmness in the muscular flesh—that the poison is at work and circulating with every pulse.

"Where the constitution is affected as in the case first described, it is at least predisposed to be sooner irritated by any local malady, and to favour, rather than otherwise, those changes by which the deleterious qualities of morbid secretions are evolved, and the more rapid career of the disease to its termination is thus explained; where, on the other hand, the constitution is healthy and even vigorous at the time of the formation, its power of resistance both to the local irritation and to the changes which precede and promote the admission and action of the poison, is in proportion great, and the progress of the disease tardy." 221.

Mr. Travers is of opinion, that "scirrhus becomes a constitutional disease" long before any external ulceration takes place, and instances the early affection of the contiguous absorbent glands, as proof of the fact. It is certain that this glandular contamination materially lessens the chance of success from an operation; but it is equally certain, that comparatively few cases are the subject of consultation in which it is not more or less apparent. Mr. T. does not deem it, *per se*, a bar to the operation, for "the degree of

induration and the state, especially the freedom from adhesions, of the principal tumour," must likewise be thrown into the scale. Mr. Travers does not deny that success has sometimes followed the operation when the cancer was already open, but still very judiciously throws these rare exceptions overboard, in deciding on the vital principal in the treatment of true scirrhus—its earliest possible removal.

Actual Origin and Nature of Cancer.

Mr. Travers observes, and probably with justice that the *formation* and circulation of a poison in the blood, is the only rational mode of explaining the simultaneous or successive appearance of the same malignant disease in remote parts of the same individual. If this be granted, it follows, of course, that exclusively *local* contamination argues the non-constitutional origin; and diffused contamination the constitutional origin, of the disease. All this is fair enough, and consistent with sound reasoning, but the practical question resolves itself from a logical and metaphysical subtlety into plain matter of fact—is scirrhus in one or in the other of these classes; is it a constitutional disease or is it not? Mr. Travers, we imagine, sees the great difficulty of answering the question decidedly, but the following passage contains the pith of his opinion. The replies, we must confess, are somewhat in the ambiguous tone of the Pythia of old, but still they evidently shadow forth our author's idea upon the subject.

"Nor is it consistent with ordinary observation that the poison acts upon the system during the integrity of the tubercle, since persons generally recover, and finally, in whom the disease is freely removed in this early stage. On the contrary, if the tubercle be softened and undergoing ulceration, i. e. absorption, the disease recurs, however freely removed, in the majority of cases; although, perhaps, a few years' extension of the term of life may be gained by the operation. The formation of the poison therefore is concomitant not with the adhesive, but the ulcerative inflammation; and it is fair I think to infer that the matter of the poison is generated not by the action which forms the tubercle, but by the series of actions instituted to destroy and remove it. But it is probable that the vessels which deposited the tubercle are the parents of those which nourish it, and from which, in the ulcerative stage of inflammation, the morbid secretion is derived." 225.

We before observed that, in medical reasoning, theories, however brilliant, and subtleties, however fine, must be tried after all, by the common experience of common men. Is it, then, the fact that persons *generally* and *finally* recover, in whom the disease is freely removed in its early stage? This is a question not to be decided by rules of logic nor laws of ratiocination, but by experience, and by nothing else. Mr. Travers of course, believes in the correctness of his statement, and certainly he must have seen a great deal of the disease. Others, however, of equal experience with himself, have been constrained to draw a more gloomy picture of the powers of the operation whenever had recourse to. Mr. Travers imagines that the system is not contaminated till the scirrhus tumour begins to ulcerate in its centre, or that the matter of the poison is *generated* not by the action which forms the tubercle, but by the series of actions instituted to destroy and remove it. This is ingenious, but then we must step over a difficulty

to get at it—*what formed the original scirrhus tumour?* The “constitutional contamination” from ulcerating scirrhus, is nothing more than the decomposition of that scirrhus tubercle in other parts, *in its primitive, and, according to Mr. Travers, its non-malignant form.* See in what confusion we become entangled by acceding to Mr. Travers’ hypothesis! The tubercle is not malignant till it ulcerates—the constitution is then affected, and forms, what? malignant or, in other words, ulcerating tubercles? No—tubercles in their adhesive and healthy stage. Thus, the effect and the test of *malignancy* is the greater or less universality of decompositions *not* malignant.

Those who deny the malignant character of scirrhus from, first to last, must necessarily get into such awkward scrapes as the above. It is safest and wisest to allow that scirrhus is essentially a malignant disease, keeping our eyes open, at the same time, to the fact of its occasional, though far from frequent, cure by operation. Before closing this part of his paper, Mr. Travers alludes again to the “medullary cancer,” and hints at a connexion between it and scrofula. We must now, however, pass to the second portion of the Essay, which treats of the various situations in which these malignant diseases may appear. This promises to be the most valuable, because the most practical division of the subject, and we hail a general and complete history of the malignant tumours that attack the various compartments of the human frame, as an inestimable boon to the profession. Mr. Travers proposes to treat of these diseases in the following order:—1st. Of the malignant diseases of the face and head. 2d. Of the malignant diseases of the external conglomerate glands, viz. the salivary, mammary, and testicle. 3d. Of the malignant diseases of the organs of generation in both sexes. 4th. Of the malignant diseases of the trunk, including the viscera; and the extremities. Under each division, he will shortly notice the diseases liable or likely to be confounded with these, their more obvious modifications by varieties of texture, and, lastly, observations on their medical and surgical management, will form the conclusion of the memoir. The plan is a noble one, but too extensive, we fear, to be carried into effect by any one man in the way which it deserves. The execution would embrace one third of the practice of surgery, and no inconsiderable share of that of physick. We wish our author well in his arduous task, of cleansing this Augean stable of the filth and rubbish that the vague observations and erroneous notions of more than 20 centuries have amassed and may perpetuate.

MALIGNANT DISEASES OF THE HEAD AND FACE.

1. Cancer of the Face.

“The malignant ulcer of the integument of the face commonly begins in a small warty tubercle, hard, irritable rather than painful, sometimes discoloured, so as to look like a dirt-spot. It is usually seated upon the side of the face, upon or between the zygoma and base of the lower jaw. It is also met with, though rarely, on the forehead, lachrymal, and infra-orbital fossa, and sometimes the chin. In the first stage it is slow—noticed even for years before it arouses the alarms of the patient. This is especially the case when obscured by the whisker, or situated in parts not obnoxious to the razor. When fretted by frequent handling or wounded, or irritated by caustic and stimulant applications, it inflames superficially and becomes exulcerated, discharging a thin matter and scabbing by turns. It next acquires a broader base of indura-

tion, has a livid circumference, and an even and glossy surface of an unhealthy brightness. There is an occasional sense of heat and soreness, but not amounting to pain. The health continues unaltered. The third stage into which the disease shifts, is that of extensive ulceration both in breadth and depth; the ulcer having an irregular margin and surface, and a profuse suppurative discharge of a peculiar odour. Exuberant fungous granulations are intersected by deep interstices or hollows, in which are lodged ash-coloured sloughs of the exposed fascia, muscles, vessels or nerves of the part. The countenance becomes disfigured by the encroachment of the ulcer upon contiguous parts and by partial paralysis. The pain is now frequent, if not constant, burning and shooting. The complexion, strength, and flesh, undergo a gradual, but sensible change—the mind becomes irritable and anxious—appetite and natural sleep fail, the pulse is rapid and small, and spontaneous bleedings take place at intervals. Ultimately death ensues from exhaustion owing to interrupted deglutition and continual irritation; and for the most part it is accelerated by repeated loss of blood.” 230.

The patients whom Mr. T. has seen have generally been florid and robust, seldom affected in their general health till the advanced stage of ulceration, sanguine of recovery, and, therefore an easy prey to the bold bad quack, either in the profession or out of it. Mr. T. would say it was more incidental to the inhabitants of the country than of the town, as well as to the ages of from fifty-five to seventy, than any other period. The sore is a specimen of the most purely local cancer, and long after ulceration remarkably circumscribed. Caustic is strongly reprobated by our author, who observes that the proper remedy is free excision, both in breadth and depth, of the indurated wart or tubercle in the skin of the face, occurring at the stated and critical period of life. The absorbent glands are seldom so affected before the ulceration as to contra-indicate the operation. In the stage of ulceration, when Mr. Travers thinks that its characters are too well marked to admit of a mistake as to its nature, a cure is hopeless, irritating applications destructive, and soothing ones only admissible. Such are, the watery infusion of opium, infusion of hemlock, &c, under a simple emollient or poultice, and the properly diluted ointments of the oxides of bismuth and of zinc. In the stage of superficial ulceration, transient and fallacious improvements not unfrequently occur. The disease, on the whole, is not very common.

2. *Medullary Tumour of the Face and Angle of the Jaw.*

This is sometimes seated in the cellular membrane, more commonly in the lymphatic glands. Mr. Travers has seen it occupying the situation of the zygomatic fossa, and also over the parotid gland, covering this and a portion of the buccinator muscle. Such tumours are moveable at first—of slow growth—little painful—increasing, from the size of a small bird's to a goose's egg, when the skin is universally adherent, erubescens, and polished. Their softness and appearance of pointing induces the inexperienced surgeon to puncture them, when blood, not pus, escapes. Mr. Travers has seen them situated on the hairy scalp, when “the subjacent bone is affected by the disease, or ulcerated by pressure before they reach any considerable size.” Our own observation would lead us to conclude that, when the medullary tumour appears on the scalp, it *originates* in the cranial diploë. We could mention some curious cases, did our limits allow of the digression

from analysis. The lymphatic gland over the parotid, and the glands at the angle of the jaw, are not unfrequently the seat of medullary tumour, which, on section, exhibits a compound character, a mixture of the degeneration and the normal glandular texture. M. Travers mentions three cases of the disease in the several situations above-mentioned, in all of which the operation failed.

3. *Cancer of the Eye-lids and Contents of the Orbit.*

"It begins in the form of a hard fretful pimply ulcer upon either palpebra, or one of the borders or angles of the tarsi. It is discoloured by inflammation and sometimes itches, discharges a thin matter, and scabs repeatedly. When it draws surgical attention it is an irregular sore, notching or puckering the border of the affected lid by removal of its substance and creeping around the orbit. Its progress is slow, but after some time the conjunctiva of the palpebra becomes elevated, thick and rigid. The ulcer at length environs the orbit and eye-ball, and a luxuriant fungus overshoots, and together with the hanging remnants of of the lids, buries the eye—so that, although the globe remains, it becomes difficult to be seen. The pain is itching and burning. The ultimate stage of the disease presents a horrible appearance. For a long time the globe remains (I have seen the cornea and humours clear) suspended, as it were geometrically, in the centre of the ruin—the malar and temporal bones are denuded, but an immense fungous mass encircles the orbit, and in part springing from it, is exerted over the supercilium, nose, temple and cheek.—The globe at last perishes, but seems rather to yield to its complete insulation than to the destroying process which it has so long withstood." 235.

Two instances of extirpation are glanced at, in both of which the disease returned. Mr. Travers removed the lacrymal gland exclusively affected with scirrhus, and prior to internal ulceration. The patient continued free from disease for some years, but has since been lost sight of.

4. *Medullary Tumour of the Eye-Ball and Contents of the Orbit.*

This disease has been so fully described by ophthalmic writers, that our author does not enter into particulars respecting it. He remarks, however, that the peculiar metallo-lustrous, or tapetum-like appearance of the fundus of the eye is *not* diagnostic of the disease, as he has seen several cases in which it has continued stationary, with the eye-ball dwindled, a fair presumption against malignancy. In these cases long alterative or salivating courses of mercury had been employed. Mr. T. has also lately seen a case which convinced him that adhesive inflammation of the choroid coat, terminating in a deposit of lymph, which undergoes a vascular organization between the membrane and the retina, "presents an appearance so exactly resembling that of the incipient medullary cancer, as to put it beyond doubt that the real nature of the appearance, if not the occasion, is one and identical in both cases." The case was that of a young lady, in which it followed a wound with a pair of fine scissors, which had passed obliquely between the margin of the iris and the ciliary body.

"The best diagnosis is founded on the increase of volume of the eye-ball or the contrary, prior to the giving way to the tunics. Even this, and loss of shape, and discoloured tumours of the sclerotic are, however, insufficient, as all may be produced by disorganizing choroiditis; but the progressive advance of the tumour to the cornea and the shrinking

and sloughing of the latter membrane, which happen prior to the protrusion of the fungus, is decisive of all doubts. The hydrophthalmic enlargement, or the direct collapse by interstitial absorption of the contents of the eye-ball, are sure indications that the disease is not malignant." 237.

Medullary cancer is frequently seated in the fatty membrane at the back of the globe.

"An extraordinary globular tumour is formed around the ball, of which the perished cornea forms the centre. It projects, stretching and so separating the lids, that they girt tightly the base of the enormous swelling. I have seen several children the subjects of this affection. The growth is sometimes confined to the upper or frontal aspect of the orbit. The upper lid is then prolonged and stretched over the globe so tightly that it is difficult, if practicable, to obtain a view of the latter. The medullary matter is of a granular or ricy consistence, and pervades and destroys the muscles, periosteum, and finally the bony vault of the orbit. I have seen its extirpation boldly performed; but its re-appearance has been almost immediate, and its progress quick to destruction." 238.

Mr. Travers never knew an instance in which medullary cancer of the eye failed to return after the operation. When firm adhesion exists between the lining membrane of the orbit and tubercles of the globe or the nerve, even to the foramen opticum, the operation is very difficult, and unsatisfactory in its result. Deep-seated disorganizing inflammation is apt to be mistaken for this disease, but the transverse section of the globe is an efficient remedy and a proper test, which should always be practised if a doubt of the nature of the case exist. In the malignant disease, a small discharge of blood and black pigment, or coagula stained with it, ensues, without collapse of the globe; in the other, a discoloured fluid escapes, the globe collapses, and the cure is complete.

5. *Cancer of the Lower Lip.*

"The commencement of this common and well-known disease is in the interjacent cellular tissue of the mucous membrane and skin. The enlargement and induration render it conspicuous before the villous surface of the lip cracks transversely, and oozes a thin fluid, then ulcerates and scabs by turns, and ultimately ulcerates deeper and fungates.—The patient is generally a healthy male of advanced years, and accustomed to smoking. Pus sometimes escapes on a section of the fungus, but the stool or base of the tumour is hard, granular, or seedy; the skin and mucous membrane and the labial glands, now prominent and warty, are closely compacted together and indurated. As the ulceration proceeds, the induration extends, and the salivary glands beneath, and the lymphatic glands, at one or both angles of the jaw, become sympathetically enlarged and tender.

Healing the sore by escharotics, &c. is tried in vain, and the only rational treatment is to remove the disease effectually and freely in its early stage. This is usually done by the hare-lip operation, but Mr. Travers prefers its excision by a full crescent-shaped section of the substance of the lip, the commissure of the mouth being left, if possible, and no suture required. The contraction and cicatrization take place remarkably well under a double-headed bandage, passing over the vertex and occiput, so as to keep a little moistened lint or simple ointment on the cut surface; whilst the disuse of suture and ligature obviates a very irritating and objectionable portion of the treatment.

6. *Cancer of the Alveolar Membrane of the lower Jaw.*

This is a rare, but well-marked form of malignant disease, not described in books, as far as Mr. Travers recollects. Mr. Travers' attention was first drawn to it by Mr. Cline, in a case where he met that able surgeon in consultation, and since that period, he has seen it thrice. All the patients were aged persons, and they die of exhaustion from deficient nourishment, pain and repeated hæmorrhages. The following is the graphic description of the malady.

"It commences at the point of reflection of the membrane of the gum on the alveolus, or on the inner side of the gum at the root of the teeth, where the sore mouth, from mercury, is commonly first perceived. Small granular eminences or tubercles are formed, by which the membrane of the gum is raised and thickened into a small lump. The disease begins in my experience, about the root of the last incisor or bicuspid, and thence gradually enlarges backwards to the middle molar teeth. Ulceration then ensues, the edges of the ulcer fungating and bleeding frequently,—it is slowly, but progressively phagedenic, destroying the soft parts, and ultimately, by ulcerative absorption, the substance of the maxilla, so as even to divide the bone. The adhesive inflammation of the contiguous membrane and soft parts during this process, and the tumefaction of the submaxillary gland give a peculiar elongation, breadth and bulging of the jaw on that side, which is a characteristic feature of the disease. The imperfect opening and cleansing of the mouth, the difficulty of taking nourishment, and the horrible fetor of the discharge,—the constant gnawing pain with shoots darting upwards to the temple, render this a disease of great suffering. It admits only of palliation by the frequent use of antiseptic and detergent gargles and lotions, as of lime-water, camphor, myrrh, borax, honey, &c. Oxyphosphat of iron, and compositions of verdigris and caustic, are of no avail. Sarsaparilla dissolved in milk, boiled bread and milk, animal jellies, and soft nutritive mucilages are best adapted for sustenance and medicine." 243.

7. *Medullary Tumour of the Mouth and Fauces.*

Mr. Travers has seen several instances of fungoid tumour situated within the cavity of the mouth—on the upper maxilla; on the lower maxilla; and more than one instance growing within and around the incisors teeth, and covering the symphysis of the lower jaw. Extirpation is attended with very free hæmorrhage, and invariably leads to a rapid re-production of the tumour, which proves fatal by impeding, or rather obstructing nutrition. It differs from the scirrhus affection described in the last section, as being a fungous production, not an eroding ulcerative disease.

8. *Cancer of the Tongue.*

"This is not a smooth and firm rounded tubercle, such as is often met with in this organ but an irregular rugged knob in its first stage, generally situated in the anterior third, and midway between the raphe and one edge. It sometimes, but seldom extends across the middle line, although it often extends alongside of it. The hardness is unyielding, inelastic, and the mucous surface puckered and rigid. It also gives to the finger and thumb of the surgeon the sensation of solidity, or of its penetrating the entire muscular substance, being perceived equally on either surface. Sharp shoots of pain are felt through the side of the affected organ, towards the angle of the jaw and ear. The disease tends to run backward towards the base or posterior edge. It sometimes acquires great bulk before ulceration takes place, so as to project the tongue from the mouth. In this state

a female patient of mine was seen some time ago in St. Thomas's Hospital, in whom the permanent projection of the diseased organ beyond the widely distended lips was from three to four inches. Life was sustained for a time by nutritive injections. The ulceration often extends from the edge of the tongue to the membrane of the mouth and gums, when the elevated and distended membrane at length gives way, and ulceration is rapid. The surface of the ulcer is very uneven, clean and bright granulations appearing in parts, and in others deep and sloughy hollows. The darting pain is very acute, but only occasional. There is a dull aching always present, and as constant a spitting as in deep salivation.—The irritation is such as soon impairs the powers of life. It happens to strong and hitherto healthy persons, for the most part males from the age of forty onwards. There is generally an evening paroxysm of pain, and the nights are much disturbed by the secretion accumulating in the throat, which excites cough. Often the patient is roused by a painful compression of the tongue falling between the jaws. The leaden hue of the countenance, the loss of flesh, and difficulty of taking food, although symptoms of the advanced stage of the disease, are observed long before the appetite or muscular powers fail in proportion.—Frequent moisture with mild fluids, as tepid milk and water, or confectioner's whey, is grateful to the patient. Speech is much affected and painful.

“Towards the fatal termination of the disease occasional profuse hæmorrhages take place at shortening intervals, and alarm and weaken the patient, who ultimately dies tired and exhausted, generally with symptoms of more extensive disease of the mucous membrane in other parts.” 246.

The period at which the sublingual and contiguous lymphatic glands become affected, as well as the extent of their implication, vary. Local irritation from the pressure of a tooth is an ordinary exciting cause, in the same manner as the pipe in cancer of the lower lip. An accurate diagnosis between this and the other affections of the tongue is an object of paramount importance, from the early and effectual removal by the knife or ligature, when possible, being the only chance for the patient in the genuine scirrhus of the tongue. Mr. Travers, however, has only seen one instance of the operation not being followed by a recurrence of the disease within a twelve-month, a melancholy fact indeed. The needle, when the ligature is employed, (and excision is hardly safe, when practicable,) must be passed beyond the centre of the disease through the sound parts, armed with a double thread. The cautery, caustic, and all stimulant applications, even borax, are mischievous; the carbonate of iron and alkaline carbonates are of no benefit, but the black wash, on the whole, is the best application. Mercury, iodine, arsenic, &c. have no permanent influence over the disease.

9. *Cancer of the Antrum.*

“This most disfiguring and destructive disease begins upon the lining membrane, and first shews itself in a bulging of the cheek under and upon the malar bone. The tumour is elevated, circumscribed, and hard, and the integument has a blush of colour. The pain is inconsiderable when the patient is alarmed by the appearance and increase of the swelling. The nostril soon becomes closed on the same side, and the teeth loose; they fall out, or are extracted, and a copious oozing of purulent ichor takes place in the mouth. The introduction of the probe by the nostril or palate is followed by free bleeding. If the alveolus is trephined, a fungus shoots up, fills the opening, and covers the gum. Next, the palate becomes depressed, so that the arch on that side is lost, and either the eye-lids are closed, or the eye protruded; and completely

amaurotic in either case. In the mean time the external swelling gains size, is quite immoveable, and the skin acquires a livid hue. Small veins are seen rampant upon it in great numbers, forming a net-work. There are commonly one or more depressions where the bone is absorbed. These break and discharge pus. The patient suffers a good deal of burning and darting pain. The ulceration extends until the mouth communicates directly with the surface, and fluids escape from the wide opening in the cheek, which is surrounded by a raised thick everted border of granulation; or the openings are less direct and fistulous, in which case the tumour acquires an enormous bulk, and the roof of the mouth is upon a level with the incisor teeth, and compresses the tongue. I have seen the disease extend its ravages in the direction of the nares, and destroy the nostril on the same side, instead of the cheek. It is needless to add, that the distress of the patient from the noisome discharge, which is very abundant, the increasing difficulty of taking sustenance from inability to masticate and fear of choking, the consequent emaciation, and loss of rest from the presence of constant febrile irritation, are soon destructive. Hemorrhages and colliquative sweatings generally hasten the desired event." 250.

Mr. Travers has seen this disease arise in an elderly lady who had large, old, ulcers on both legs, which she avoided healing up entirely, and indeed could not. On examining these tumours, they are found to consist of a chaotic mass of coagula of lymph and blood, holding spiculæ of bone. Patients frequently, but no doubt fallaciously, refer the origin of the disease to the extraction of a molar tooth.

10. *Cancerous Fungus of the Nares and Antrum.*

A growth essentially malignant, but happily rare, to which the common lining membrane is subject. It is a brittle fungus, extremely vascular, growing from the whole surface of the cell, most commonly in the antrum, distending the parietes enormously by its rapid growth, and reproduced again and again with great celerity after masses of it have been cut or torn away, the separation being generally followed by excessive or even dangerous hæmorrhage. It is denominated, improperly in Mr. T.'s opinion, malignant polypus, and is sometimes confounded with the fleshy polypus.

11. *Cancer of the Fauces and Pharynx.*

Scirrhus tonsil, like many other things in surgery, is much talked of but little seen. But the broad papillæ at the root of the tongue, the tonsils, and the mucous follicles of the glottis and pharynx, are each occasionally the proper seats of the disease, beginning in tumour and induration, and terminating in fungus.

"Scirrhus strictures followed by ulceration and cancerous fungus are met with in the pharynx and top of the œsophagus in elderly persons, chiefly females in my experience. They are productive of constant nausea, dry burning sensations in the throat and stomach, difficult breathing, frequent spasms and alarms of suffocation, and excessively impeded deglutition; upon the gentlest introduction of the finger or bougie, hæmorrhage follows, which afterwards becomes spontaneous. The patient has a faded sallow countenance, a disturbed circulation, and is emaciated to a skeleton." 252.

12. *Cancer of the External Ear.*

The ear is rarely primarily affected, but Mr. Travers has once seen the

upper third of the external ear the exclusive seat of an indurated sore, having every character of cancer. The diseased piece was amputated, the wound healed, and the patient, Mr. T. belives, remains sound.

13. *Medullary Tumour of the Internal Ear.*

Mr. Travers has seen but one example of this disease. The tumour extended from the temporal fossa to the angle of the lower jaw, and internally to the posterior nares and fauces. The mastoid cells apparently escaped. The jaw became locked; a bleeding fungus filled the meatus; the head, face, and muscles of deglutition were paralysed; coma succeeded; the patient was nourished with great difficulty, and inanition accelerated his death. No post-mortem inspection was permitted.

DISEASES OF THE HEAD AND FACE, SOMETIMES MISTAKEN FOR CANCER.

The three first affections described under this head are, the crustaceous herpes, lupus, and a peculiar affection of the integuments of the face, resembling elephantiasis. These affections being described in the works on cutaneous diseases, we shall pass over here, and stop at,—

4. *Ulcers of the Mucous Membrane of the Mouth and Tongue, Fauces, Nares, &c.*

"From these there can scarcely arise any difficulty in diagnosis. They are aphthous or tuberculous, scrofulous or venereal, or of the herpetic character which I have described as affecting the skin of the nose and upper lip especially, and there forming a scab or crust. I have seen the pits or fissures of the tongue following and even alternating with this herpes of the nose. A lunar caustic lotion, or the verdigris liniment, or the caustic itself in pencil, are the best applications, and arsenic, steel, and sarsaparilla the best medicines. Mercury is decidedly injurious. They are as little venereal as cancerous, but they frequently follow mercury, and are indeed a symptom, among many others, of mercurial scrofula.

"The tongue and lips are not unfrequently the seat of venereal ulcers, as well as the nose and palate. These are secondary sores, with few exceptions. Sometimes however, the tongue exhibits a genuine chancre, although it is not easy to explain the occurrence even among the most abandoned. The appearance presented by the large and deep fissures of the secondary ulcers, with their high edges falling asunder, and the irritable and painful state of the surrounding parts, the sensible increase of destruction from day to day, and the fetid discharge mixing with the saliva, lead some to suppose them cancerous; whilst others—from their invariable aggravation by mercury in any but the mildest form, and unaided by generous diet and sarsaparilla—regard them as cachectic, and the result of mercurial action in a scrofulous habit. The employment of mercury requires greater delicacy both in the time and mode of exhibition in sores, whether venereal or cachectic, affecting the lips, tongue, and palate than similar sores in any other region of the body. In many it is contra-indicated altogether, while to others it is essential, even when the history renders their venereal origin disputable. But to pursue these observations would lead me too far from my subject." 258.

5. *Globular Tumour of the Tongue.*

This is like a marble in size and touch, situated deeply in the substance of the organ, very uniform and unyielding in its surface. It is occasionally

mistaken for scirrhus, but invariably disappears under the use of medicines calculated to improve the tone and secretions of the stomach, as the alkalies, with bark and steel. From its complete absorption Mr. Travers supposes it to be a cyst containing an albuminous fluid, but he has never wounded it.

6. *Vesicular and Fleshy Polypi.*

The vesicular, hydatid, or common polypus of the nares is too well known to require description: it is not liable to the suspicion of malignancy. The fleshy is flat, oval, or oblong, like a horse-bean, solid, opaque and generally has a broader attachment than the former. It is most common in the posterior nares, where it is productive of much inconvenience to the patient. Many may exist together, and being in firm masses they do not break readily.

"Polypi are frequently formed in the meatus auditorius. When springing from or contiguous to the membrana tympani, so as to prevent its vibrations they occasion complete deafness. There is a vesicular polypus auris, which takes the shape and length of the meatus, and with ordinary caution is extracted entire, like that of the nares. The fleshy is granulated, very vascular, and brittle, lies upon and conceals the drum, and does not grow to any great size, but ulcerates and gleans profusely and offensively. This requires cautious treatment. I never saw any possessing a character of malignity.

"Polypi of both species form in all the cells and chambers of the bones of the face and head. The lachrymal fossa and inner angle of the orbit, above and below the tendon of the orbicularis palpebrarum, in the place next in frequency to the nostril, at which they give external demonstration of their existence. Next to this, the antrum; and, indeed, the disease in the antrum generally presents these appearances in the nostril and at the orifice of the lachrymal canal, before that chamber is bulged externally.

"Polypi occasion the same deformity by their increase in accessible situations, as was described in speaking of the malignant tumour of these parts. In the antrum, they protrude the cheek, lift the floor of the orbit, obliterate the nostril and depress the vault of the palate. In the orbit they protrude the eye-ball, and projecting on either side, fix and compress it in the opposite direction. In the æthmoid, sphenoid, and frontal sinuses they loosen and even detach the bones from their connection, and occasion a hideous deformity with paralysis and coma, the consequences of serous effusion in the ventricles of the brain." 260.

Mr. Travers considers both vesicular and fleshy polypus as originally quite free from malignancy, but occurring in the deeper and inaccessible parts they must prove ultimately destructive from their productive and reproductive tendency, progressively extending from cell to cell, occasioning by their growth the formidable consequences already narrated.

"The cancerous fungus which I have described as growing from an extended surface, not a point of the membrane of the nares or antrum, and which, by this circumstance, is marked as a truly malignant disease, I have heard surgeons denominate 'fleshy polypus'; with which disease it has nothing in common but its effect to distend and burst asunder the parietes within which it is contained. The character of the deep ulcerated openings which form in cases of polypous growth, and the heterogeneous mass left after the process is terminated by death, the sufferings of the patient, the noisome fetor of the discharge, and the frequent and free hæmorrhages preceding dissolution, which are incidental, not characteristic features of analogy, have led some observers to conclude that the disease, although simple in its commencement, has taken on or induced a cancerous action. But I

doubt if cancer is ever a consecutive disease; although I know many instances of its being chronic, and of cancer being set up at a particular period of life in persons who were the subjects of other disease, and of local injury, seeming to afford the occasional cause of its appearance." 262.

This brings the present paper and our analytic labours to a close. The remaining divisions of the subject will be discussed by Mr. Travers at a future opportunity, and when that opportunity is seized we shall take especial care to bring the learned and talented author again before our readers. Our opinion of the merit and substantial value of the memoir from which we are now to part, is stamped in the copious analysis we have given of it; for we may say of our respect for the productions of writers, as the *GIAOUR* says of his passion on his thriving day:—

"But these are words that all can use,
A proved it more in deed than word."

As it is customary however in good company, to salute on taking leave, we beg to make our *congé* to Mr. Travers, and return him many thanks for the instruction we have received in perusing his account of the various malignant diseases of the face and head. We are convinced that if he prosecutes the subject, and describes, as he proposes, the same diseases in the other portions of the body, he will do an essential service to the profession, and no doubt obtain, as he will deserve, its gratitude.

X.

ON THE IRRITABLE UTERUS. By *Robert Gooch, M. D. &c.*

[ART. IV.]

THE fifth chapter of Dr. Gooch's work is occupied with the subject of irritable uterus—a painful and tender state of this organ, neither attended by, nor tending to produce, change in its structure. Dr. G. at first took the disease for chronic inflammation, which might end in disorganization; but further observation, though it taught him that the complaint was very intractable, proved that it was not a disorganizing malady. He is acquainted with cases where it has now lasted more than ten years, and yet where the uterus is unaltered in structure.

"Pain in the lowest part of the abdomen and loins attends various diseases of the unimpregnated uterus. It is the chief symptom in painful menstruation; but here it occurs only during the menstrual period, and is quite absent during the rest of the month. It is the most distressing symptom in descent of the uterus, (prolapsus,) but here it occurs only in the upright posture and exercise, ceases on lying down, and replacing the organ, and is prevented by supporting it in its natural situation. It attends most of the diseases of structure to which the uterus is liable; but the change of structure, which may be ascertained by examination, distinguishes the nature of the pain.

"A patient who is suffering from the irritable uterus complains of pain in the lowest part of the abdomen, along the brim of the pelvis, and often also in the loins. The pain is worse when she is up and taking exercise, and less when she is at rest in the horizontal

posture; in this respect it resembles that of prolapsus uteri, but there is this difference, that in the latter, if the patient lies down, she soon becomes quite easy, but in the complaint of which I am speaking, the recumbent posture, although it diminishes, does not remove the pain. It is always present in some degree, and severe paroxysms often occur, although the patient has been recumbent for a long time. If the uterus is examined, it is found to be exquisitely tender, the finger can be introduced into the vagina, and pressed against its sides without causing uneasiness, but as soon as it reaches and is pressed against the uterus, it gives exquisite pain. This tenderness, however, varies at different times, according to the degree of pain which has been latterly experienced. The neck and body of the uterus feel slightly swollen, but this condition also exists in different degrees, sometimes sufficiently manifest, sometimes scarcely or not at all perceptible. Excepting, however, this tenderness, and occasionally this swelling, or rather tension, the uterus feels perfectly natural in structure; there is no evidence of scirrhus in the neck, the orifice is not mis-shapen, its edges are not indurated. The patient, finding her pain greatly increased by rising and walking, soon learns to relieve herself by lying on the sofa, and at length spends nearly her whole time there. Notwithstanding this precaution, there is always a considerable degree of uneasiness, but this frequently increases to severe pain. These paroxysms generally come on either a few days before menstruation, or (as is the case in many instances) a few days afterwards. If the paroxysm is properly treated, it subsides in a few days to the ordinary and more moderate uneasiness. Whilst this uneasiness is felt in the substance of the uterus, the general circulation is but little disturbed. The pulse is soft, and not much quicker than is natural; but it is easily quickened by the slightest emotion. In a few instances, however, there has been a greater and more permanent excitement of the general circulation; the degree in which the health has been reduced has been different in different cases. A patient who was originally delicate, who has suffered long, and has used much depleting treatment, has been (as might reasonably be expected) the most reduced; she has grown thin, pale, weak, and nervous; menstruation often continues regular, but sometimes diminishes, or ceases altogether; the functions of the stomach and bowels are not more interrupted than might be expected from the loss of air and exercise; the appetite is not good, and the bowels require aperients; yet nothing more surely occasions a paroxysm of pain than an active purgative. Such are the leading symptoms of this distressing complaint. To embody them in one view, let the reader fancy to himself a young or middle aged woman, somewhat reduced in flesh and health, almost living on her sofa for months, or even years, from a constant pain in the uterus, which renders her unable to sit up and take exercise; the uterus, on examination, unchanged in structure, but exquisitely tender; even in the recumbent posture always in pain, but subject to great aggravations more or less frequently. 314.

The causes are supposed to be, considerable bodily exertions at times when the uterus is in a susceptible state. In one patient it came on after an enormous walk during menstruation—in another by going a shooting, with her husband, soon after an abortion—in a third, by standing many hours, for several nights in succession, at concerts and parties—in a fourth, by a long journey over the paved roads in France, and so on. But the above appeared to be the *exciting* causes, there were doubtless *predisposing* ones in operation previously.

Long-continued pain in an organ liable to malignant diseases leads, of course, to apprehension of organic changes, and to repeated examinations that end in no discovery, except that of tenderness or some slight swelling. The recovery is often extremely tedious—and relapses are very common.

“By complete repose in the recumbent posture, and proper remedies, the painful paroxysms become slighter, and return at longer intervals; the stationary uneasiness becomes gradually less, and at length ceases altogether, and at the end of a few months

the patient is left free from pain, but more or less enfeebled. No disease, however, is so liable to relapse. The patient, feeling easy, finding herself feeble, and supposing that air and exercise are necessary to the recovery of her health, rises and goes about again, and after a short interval of caution, throws aside her fears, engages in walks, drives, and gaiety, or takes a journey to the sea, for the recovery of her health. This conduct commonly occasions a complete relapse, and the patient and her attendant are again involved in their former suffering, apprehensions, and difficulties." 316.

What is the nature of the disease? Mr. Brodie has described an irritable or hysterical knee—Sir Astley Cooper an irritable mamma—and we believe that the same term is applicable to the uterus—and the same explanation to be given of its nature.

The treatment which our author has found most useful (tardy as it is in some cases, and ineffectual in others) consists, in subduing pain and restoring the general health. The difficulty is to know when to discontinue the former indication, and when to aim at the latter. The remedies for subduing pain are, the horizontal posture, narcotics, warm hip-baths, occasional local bleeding, to which may sometimes be added mercury and counter-irritants.

"In all those cases in which the pain is perpetual, repose should be perpetual. The patient must abstain not only from foot and carriage exercise, but from the upright posture, which even for short intervals is often sufficient to counteract the cure. As soon as she is dressed in the morning, she should be placed on her sofa with her shoulders as low as the pelvis, and in that posture remain the whole day. At first it is tedious, but she soon learns to amuse and occupy herself in this position, to write, read, work, and draw. This posture more or less strictly observed (the degree of strictness being soon taught by the sensations of the patient) is absolutely necessary for the completion of the cure, not only till all pain has ceased, but for some time afterwards, and even then must be relinquished with the utmost caution or rather timidity." 319.

The next measure is to draw blood. As the general circulation is seldom disturbed, local is preferable to general bleeding. Cupping affords more relief than leeching. The best part to apply the glasses is the upper part of the sacrum—or the part to which the pain is referred. Leeches afford most relief when applied to the hæmorrhoidal vessels, or between the labia pudendi. The quantity drawn must depend on circumstances—the best guides being the state of the constitution, the duration of the disease, and the relief afforded.

"Twelve ounces of blood is a large local blood-letting; it seldom requires to be repeated to the same amount; I have known four ounces afford all the relief which this remedy was capable of effecting. But the pain, if only diminished will increase, and if removed, will return sooner or later. The blood-letting, therefore, requires to be repeated, and the question is, whether to defer it until the return or increase of the pain, or to anticipate this return or increase. I think the latter is preferable when the period of recurrence can be nearly calculated; both reason and experience show that a mode of treatment which prevents an organ from resuming its morbid action, is more likely to remove it permanently, than one which permits the action to recur, and then removes it; the subsequent bleedings, however, ought not to be so large as the first, and as it may be necessary to repeat these several times, it is important to discover the minimum of blood which will afford relief." 321.

The next remedy is narcotics. Of such medicines the most useful are, "one-third camphor and two-thirds extract of henbane, or hemlock, or poppy divided into pills of five grains; of which one may be taken two or three times a day:—or, about ten grains of extract of poppy, dissolved in an ounce of gruel, may be injected into the rectum every day, immediately after the bowels have acted."

As want of exercise and narcotics confine the bowels, aperients must be used; but they should be of the gentlest kind. "That is the best aperient which will act only once plentifully, and without pain; and those which have most frequently acted in this way have been the solution of sulphate of magnesia in infusion of roses—castor oil—electuary of senna—sulphur." One of these should be taken every second day. The horizontal posture and local bleedings, with narcotics, are the remedies most invariably useful. There are other auxiliaries, however, which are not to be neglected. One is the warm hip-bath, at a temperature of 96°, for half an hour every, or every other night. But a better still is a partial steam-bath. The flannel sack should be drawn up to the præcordia, so as to enclose the abdomen and lower extremities, and these may be exposed to the action of the steam for half an hour every other day.

"Another remedy is a mild course of mercury; from three to five grains of blue pill, or compound calomel pill, mixed with five grains of extract of henbane, taken every night for several weeks, or every other night for many weeks, have sometimes, without affecting the gums, occasioned a very regular action of the bowels; and during its influence, the periodical aggravations of pain have not recurred, and the permanent pain has diminished, and at length ceased altogether. Whilst the mercury has had this favourable influence over the local disease, it has occasioned no material injury to the constitution. This has been its effect chiefly when the health has not been much reduced, and the disease has not lasted very long. On the contrary, in other cases, in which the body has been previously debilitated and emaciated, mercury, although it had a favourable influence over the local disease, occasioned so much wasting, weakness, and nervousness, as to compel me to discontinue it. Mercury requires to be employed with the utmost circumspection, and its effects in each individual case ought to determine whether it should be persisted in or discontinued." 324.

Counter-irritation is another remedy which deserves notice. Small blisters the size of a watch, may be applied to the upper part of the sacrum—allowed to heal—and then re-applied many times. Or a caustic issue, the size of a dollar, and kept open with savin ointment, may be established on the same part. In very sensitive constitutions, these blisters excite much irritation, without equivalent good.

"The practitioner can do no harm, and must do good as long as he confines himself to the employment of the recumbent posture, mild narcotics, warm hip-baths, and unirritating aperients; but with blood-letting and mercury he must be more cautious. I have seen many cases in which the pain was rather aggravated than relieved by bleeding; the patient rendered weak and irritable, and the effect of the remedy was unmixed injury; in the employment therefore of such remedies as bleeding and mercury, the intelligent practitioner will, after a little time, be better guided by his own experience of the case than by any general directions. It is a good rule in the treatment of all diseases, whether acute or chronic, when the remedies are affording little benefit, when the constitution rather than the disease seems to be yielding under them, to desist from them; this is a rule of com-

mon sense above the rules of art, and to which the latter ought to be subservient. I know no man whose knowledge of his profession is so exact, and whose opinion of a case is so infallible, that he may dispense with this rule.

"Lastly, there is a stage or a class of these cases which is chiefly benefited by restorative means, especially chalybeate waters. When the disease has lasted long, is not relieved by the above treatment, is accompanied by broken health, cold extremities, and a pale complexion, I have often known the disease to be cured by the waters of Tunbridge Wells or Bath; the patient gradually losing her pain, regaining the power of sitting up and going about, and acquiring a more healthy appearance. The plan, however, requires great caution, for where the jar of a carriage brings on pain, the journey will often do great mischief; and the chalybeate waters, which in some cases are so efficacious, are in others clearly pernicious. The probable effect of a journey may be known by a few drives, and the effect of the waters ought to be carefully watched; their influence on the pain and on the pulse is the best guide." 326.

Such is our author's description of this often intractable disease, and of the remedies which he has employed in the treatment. In his hands the result has been, that some who had been previously ill for several years, recovered after a few months and continued well, by strictly avoiding the exciting causes. Others after a far longer treatment, experienced the same recovery; and this recovery was rendered permanent by the same long-continued caution. Others, again, after sooner or later recovering, have laid aside caution, indulged in unrestrained exercise and exertion, and have experienced a relapse as tedious and severe as the original attack. Lastly, his best efforts, in some cases, have alleviated, but not removed the disease, and he has had the mortification to see them at the end of several years, little better than at the beginning.

"The older I grow, however, the fewer instances do I see of this hopeless condition of the disease, and some of which I had begun to despair, have slowly but ultimately recovered. I think it an important fact, that in the cases which remained uncured after many years, the patients had, for the relief of their pain, gradually accustomed themselves to a daily enormous allowance of opium." 327.

The paper terminates with a detail of three cases of the disease. But as we have given so full an analysis of this dissertation, we need not advert to the cases. The thanks of the profession are unquestionably due to Dr. Gooch, for this essay on a subject previously undescribed, and generally misunderstood, if not mistreated.

XI.

ON DISEASES OF THE TEETH. By *Thomas Bell, F. R. S. &c.*

[Concluded from No. 22, p. 336.]

IN the pursuance of our analysis of Mr. Bell's very excellent work, the next subject to which we come is—

LOSS OF THE ENAMEL AND WEARING DOWN OF THE TEETH.

Mr. Hunter appears to have been the first to notice this "decay of the

teeth by denudation," which consists of a gradual loss of substance, generally without discoloration, or any appearance of disease. It commences on the surface of the enamel, attacking first the central incisores, sometimes removing the anterior surface of the enamel generally or partially—in other cases making a perfect and regular horizontal groove, which gradually increases, till it has extended to the bone. From the central it passes on to the lateral incisores, and thence, in succession, to the cuspidati the bicuspidates, and, in some cases, even to the molares. The groove is perfectly straight and continuous through its whole extent, and is often as regular and smooth as if it had been formed by a round file and afterwards polished. When the bone of the tooth is exposed by this process, it becomes slightly discoloured, but remains long sound and hard, seldom exhibiting any appearance of gangrene. The cause of this affection has hitherto remained unknown. Mr. Bell thinks the most probable solution of the question would be the attributing it to friction, for he has seen many instances where it has appeared to be produced by the use of rough or acidulated tooth-powders, but in other cases no such cause existed.

"As I have here alluded to the mode which nature adopts to prevent the cavities of the teeth from being laid open by the removal of the bone, I will make a few observations on the wearing down of the teeth by mastication, to remedy which a similar process is set up. It often happens, either from the particular position in which the teeth meet each other, from a deficiency in the structure of the enamel, or from some peculiarity in the food, that the surfaces of the teeth are gradually worn away, until not only the bony structure is left unprotected by enamel, but at length the cavity itself would be exposed, but for a deposition of bone which is formed within it, in proportion to the external abrasion of its substance. The new bone is darker and more transparent than the original substance of the tooth, but nearly of the same degree of hardness. It is first deposited in that part of the cavity towards the worn surface, and becomes gradually more and more filled as the tooth becomes abraded. This process, as Mr. Hunter well observes, proves to demonstration that the opening at the extremity of the root does not close from age, except with the actual obliteration of the cavity by a fresh deposition of bone: for it is, undoubtedly, from the vessels of the internal membrane, supplied through that foramen, that this new bony matter is formed." 190.

II. *Salivary Calculus.* The deposition of a calculous deposit on the teeth is almost universal. When first deposited it is soft, friable, and readily crumbles under the finger; but, by a kind of slow crystallization, acquires almost a rocky hardness. It is most probably a deposition from the saliva.

"With the exception of gangrene, there is no kind of injury to which the teeth are exposed, so commonly and so extensively destructive as this concretion. As it is, generally, first of all deposited at the necks of the teeth, and especially underneath the free edge of the gum, its first effect is to excite more or less irritation in that structure, producing increased redness and sensibility, with sponginess and separation of its edge from the necks of the teeth. As the accumulation increases, its effects keep pace with it; the gum becomes exceedingly painful, so as to render the ordinary operation of brushing the teeth almost impracticable, and thus, by inducing a neglect of the common means of preventing its accumulation, it becomes the unavoidable cause of its continued increase. Absorption of the gum and alveolar process is the next consequence, which gradually goes on until the teeth, losing their support, become loosened and at length fall out. A temporary and fallacious support is sometimes produced

by a large quantity of tartar, which forms one continuous mass around the loosened teeth, and instances have occurred in which several teeth thus cemented together have come away without being separated from each other." 197.

In very irritable and unhealthy constitutions, a bad ulceration of the gums is thus induced, and sometimes extends to the cheek or tongue, rendering it necessary to remove the irritating substance, and to administer alterative remedies, combined with, or followed by, tonics, together with powerful astringent lotions to the parts.

"As this substance is formed from the saliva, whatever cause produces an unhealthy action in the glands secreting that fluid, will be found invariably to occasion a greater deposition of tartar. Fever—indigestion, or any irregular state of the stomach—drinking, smoking; and similar causes of irritation in the salivary glands, whether local or constitutional, immediate or sympathetic, will produce it. The action of mercury is one of the most speedy and unfailing causes of its accumulation, as it not only induces an increased and unhealthy action in the salivary glands, but also, by rendering the gums highly susceptible, prevents the necessary precautions from being used, by which the teeth might be kept clean.

"The earthy matter of salivary calculus combines with a considerable quantity of the mucus of the mouth during its deposition; and, as the same causes which occasion its formation, will tend equally to produce an increased and unhealthy secretion of mucus, which as it is thus rendered viscid, is with more difficulty removed, it often happens that this matter, already offensive from its diseased condition, becomes excessively fetid from putrid decomposition. Hence arises that peculiarly disgusting factor which almost invariably accompanies the rapid deposition of tartar. If however the action which occasioned it be checked, this offensive smell gradually subsides as the calculous deposit becomes consolidated." 198.

In the way of prevention, a due attention to the state of the stomach will do much, but the accumulation of tartar can only be avoided by constant cleanliness, and by carefully removing it as soon as it is deposited, and before it assumes a consolidated state.

"The constant use of a tooth-brush will, in many cases, be sufficient to keep the teeth free from tartar. The brush should not be very hard, as it will not only be more difficult to clean the interstices between the teeth, the part in which the tartar is most likely to be deposited, but, by its friction, will occasion the gradual absorption of the gum, and the exposure of the necks of the teeth. The hair of the brush should be firm and elastic, and not too closely set. The teeth should be thoroughly brushed in every part at least night and morning, and the mouth always rinsed after each meal. In those constitutions in which there is a particular tendency to form tartar, it will be necessary to have recourse to some simple tooth-powder, such as prepared chalk, or any other substance equally simple and soft; it may, in some cases, be desirable to combine with it a small proportion of the bone of the cuttle fish very finely powdered, and, if the gums are spongy and lax in their texture, a little alum, powdered myrrh, or bark may be added with advantage. Many of the tooth-powders which are offered for sale, with the promise of rendering the teeth beautifully white, perform, for a time, all that is promised, at the expense of permanent and irremediable injury to the teeth; for they often contain a quantity of tartaric or other acid, which effects a gradual decomposition of the enamel. The use of acids to the teeth cannot be too strongly deprecated. Even where it is necessary to administer acid medicine, it is of considerable consequence that it should be taken through a glass tube, to prevent it from acting upon the enamel of the teeth. For want of this simple precaution, the teeth are very often irremediably injured by the use of this class of remedies.

"The tartar is to be removed by means of instruments adapted for the purpose, and commonly known by the name of scaling instruments. They are of several forms, accommodated by the different situations from which the tartar is to be removed, and should be highly tempered, and the edges kept sharp and hard. It is of consequence that every particle of it should be taken away, not only from the external and internal surface of the teeth, but also between them; for if it be suffered to remain in any part, it forms a nucleus, around which a further accumulation will be immediately deposited. When the tartar exists in considerable quantities, and especially if the teeth are at all loosened, it is proper to remove it at different times, with an interval of some days, that the teeth may recover from the effects of the first operation before the second is performed, and in order that they may receive as much benefit as possible from this plan, the tartar which is formed around the necks of the teeth, and which has been the cause of the loss of the gum, and the consequent loosening of the teeth, should be first removed, which will allow of the gum being partially restored, and the teeth rendered, in some measure firmer, and capable of bearing without injury, the subsequent operations. In the mean time, this object will be much assisted by the frequent use of some astringent lotion, according to either of the following formulæ :

- R. "Aluminis, ʒiss.
Tinct. Myrrhæ, f ʒiii.
Mist. Camphoræ, f ʒvss. Misco.
- R. "Vini Rubri Lusitan.
Mist. Camphoræ, a f ʒii. Misco.
- R. "Infusi Rosæ, f ʒii.
Decoct. Cinchonæ, f ʒiv. Misco." ʒ01.

After the removal of the tartar, if the gums should remain swollen and spongy, they should be occasionally scarified, the foregoing lotions being continued for a time. When much heat and pain are felt in the gums, a solution of nitre in barley water is a useful fluid for washing the mouth. The application of strong mineral acids for the removal of the tartar is to be deprecated as excessively injurious, as it dissolves the enamel and earthy part of the bone whenever it comes in contact with them.

III. *Diseases of the Internal Membrane.* The frequent occurrence of inflammation in a structure so delicate and exquisitely sensible as the internal pulp or membrane of the tooth, need not be wondered at; and the results of such inflammation, surrounded by hard unyielding substance must be severe.

"The suffering occasioned by inflammation in a sound and previously healthy tooth is, in fact, of a different character from that which is produced by the exposure of the membrane by fracture or by decay. In the former case, it is of a deep heavy kind, and wholly unaccompanied by those acute darting paroxysms which attend the exposure of the pulp; though, with that exception, it is scarcely more endurable than severe and continued tooth-ach, properly so called. Whenever a tooth becomes inflamed, from whatever cause, and the pain which I have now described occurs, the gum should be repeatedly bled by leeches; and, if they are early applied, and the bleeding be freely encouraged, the inflammation will generally be soon arrested and no unpleasant consequences ensue. But it occasionally happens that the inflammation goes on to such an extent as to produce either alveolar abscess, or even suppuration of the pulp itself, and the consequent confinement of an increasing secretion of pus within the dental cavity. This constitutes the disease

which Mr. Fox considered as resembling *spina ventosa* though certainly it requires some stretch of the imagination to see the analogy between these two affections.

"The matter by its pressure, produces absorption in the parietes of the cavity, and at length finds an outlet by this means at the extremity of the root, the foramen of which is very greatly enlarged. The pulp has by this time become partially absorbed, and the remaining portion having mortified, the tooth also loses its vitality, and gradually assumes a darkish hue. The pus having now escaped into the extremity of the alveolar cavity, at which part the thickening of the periosteum and effusion of lymph had formed a solid organized mass, thus becomes absorbed in the centre, and forms the sac of the abscess, which now differs in no respect from common alveolar abscess, excepting in its communication with the dental cavity. Absorption of the alveolar process and gum gradually gives an outlet to the enclosed pus, and a discharge continues afterwards to take place, which, from the mortification of the pulp, is so extremely fetid, as to form a tolerable diagnostic character between this disease and common alveolar abscess occurring from inflammation of the alveolar periosteum, in which the pus is usually nearly inodorous, excepting when it has been long confined, or when the bone has become carious. On extracting the tooth, the only remedy when pus has once been formed, the tooth will generally be found absorbed in patches, not only within the cavity, but on the external surface of the root also, as in all cases of total necrosis of a tooth from any other cause. Should the tooth be retained, the opening made by the pus will remain fistulous, and the matter continue constantly to be discharged. The termination of such cases is, in fact, precisely similar to that of total necrosis, as already described." 205.

IV. *Diseases of the Gums and Alveolar Processes.* The greater number of these are produced by the irritation arising from diseased or dead teeth—and it is rare to see a strictly idiopathic affection of these parts. But the sympathetic diseases are much modified by idiosyncrasy; for what in one person would only produce simple abscess, will, in another, lead to ulceration of a decidedly cancerous type, or fungus, &c. Constitutional disorder will sometimes also affect the gums and alveolar processes independent of diseased teeth.

"A cachectic condition of the system, the abuse of mercury, and similar causes, will frequently bring it into action; but perhaps no persons are more liable to its occurrence than those in whom the constitution is worn out by debauchery and intemperance, where the system has become irritable in proportion to its debility, and where the tone of the stomach has yielded to the effects of a long-continued course of incessant excitement; and the disease resumes a more or less formidable character, according to the extent to which the constitution has suffered." 208.

But as this subject belongs to general pathology rather than to dental surgery, Mr. Bell proceeds to points more closely connected with the object of the publication. It is curious, he observes, that absorption of the gum never precedes that of the alveolar process, at least so as to occasion denudation of the edge of the bone. On the contrary, the bone is always removed first. This alveolar absorption is, of course, a natural process in old age, and is then merely an indication of general decay. It sometimes, however, takes place even before the middle period of life, indicating a premature decline of the powers of life.

"This disease is very frequently first excited, and afterwards kept up, by continued indigestion, or some affection of the stomach, constantly acting upon the system. In other

instances the cause may have existed at a remote period ; and the action which was then set up in the gums, having become chronic, the local disease continues long after the cause which had produced it, ceases to exist. Thus an attack of fever, frequent pregnancies, and any other violent or repeated commotion in the system ; but more than all, the action of mercury carried to excess, will very often be found to have originally produced the disease, which survives its cause, in many instances for a great length of time. I have seen numerous cases in which the action of mercury had apparently ceased soon after the cure of the complaint for which it was administered ; yet, after the lapse of two years or more, the gums and alveolar processes have re-assumed a morbid action, and this has gone on to such an extent as to occasion the loss of the greater number of the teeth.

"The local symptoms of the disease in question resemble in a great measure, those of all other diseases of the gums arising from irritation. The gums are spongy, turgid and vascular, bleeding very readily on being pressed, and generally very painful to the touch. In some cases, the edges only are thickened, the enlargement being distinctly circumscribed ; in others, the swelling extends to the whole substance of the gum. The colour is very much deepened, and of a purplish hue, with a slight degree of transparency, which gives a very peculiar appearance, not easily described. If this state of the parts be suffered to remain unattended to, the symptoms gradually become more aggravated. The irritation extends to the interior of the alveoli, occasioning a thickened state of the periosteum, with a slight degree of loosening of the teeth, the pressure of which produces more or less pain. The alveolar or dental periosteum at length secretes a purulent matter, which is discharged at the necks of the teeth. The alveolar processes continue to be gradually absorbed ; but so slowly, that in some cases, several years may elapse without producing much alteration. At length, however, their absorption extends so far as no longer to allow of their retaining the teeth, which one after another, spontaneously fall out. In general, the gum very speedily assumes a healthy appearance after the loss of these loose teeth ; but I have seen a few cases, in which even the part from which the teeth have been removed, continues in an unhealthy state, which defies every local as well as constitutional remedy, which has been resorted to for its cure." 212.

The treatment of these affections is simple ; but it should be decisive and prompt. The first thing is to lance the gums *freely*. It is not upon the gradual abstraction of a certain quantity of blood that the advantage of this operation depends, but upon the sudden and perfect unloading of the vessels of the spongy gum, and the contraction of those vessels immediately consequent upon it.

"The best mode of fulfilling this object, is by passing a common lancet into the gum, carrying it between the teeth as low as the transverse alveolar processes will permit, and thus making a complete perpendicular section of each portion of gum : the lancet is then also to be drawn across the gum horizontally ; and it will be found, if the lancet be carried sufficiently deep, that an immediate collapse of the vessels will take place ; and this is to be rendered permanent by the frequent use of some strong astringent lotion. The following formula may be used for this purpose :

"R. *Aluminis Sulph.* ʒij.

Decoct. Cinchonæ

Infusi Rosæ ʒij. *Misce. Fiat. lotio.*

"The section of the gums should be repeated from time to time at intervals of a week, until the sponginess and inflammation have entirely subsided ; and the necessity for a frequent and continued use of this plan will, of course, depend upon the degree and obstinacy of the disease." 215.

In all cases it is highly necessary to pay great attention to the stomach. Mild alteratives should be given till the fur of the tongue disappears, and the bowels are restored to healthy function, after which tonics will be very beneficial.

V. Alveolar Abscess. The term gum-boil conveys a most erroneous meaning. The gum is only secondarily affected, the cause being invariably within the alveolus. It is produced in various ways—sometimes, though rarely, by inflammation in the periosteum of a sound tooth, from cold or other local cause. The irritation of tooth-ach is a common cause—but the most frequent cause is the existence of a dead tooth or root acting as an extraneous body in the socket.

“The first effect produced by the irritation of a diseased tooth, or a dead root, is a thickening of the periosteum of the alveolar cavity, which raises the tooth in the socket, and renders it a little loose, and susceptible of considerable pain on pressure; an effusion of coagulable lymph then takes place around the extremity of the fang, which becomes condensed into a sac, in the centre of which pus is formed. The sac will be found closely embracing the root just above its extremity, which is, as it were, bathed in the pus.” 216.

“The irritation increases, and extends to the gum and neighbouring parts which become affected with severe throbbing pain; redness, and thickening of the gum, and at length a greater or less degree of tumefaction of the face occurs; and the pus having occasioned by its pressures absorption of the investing parts, forms for itself an outlet, in some cases externally, either in the cheek, or opposite the base of the lower jaw, but more frequently within the mouth through the gum. 217.

The treatment is similar to abscess in other parts. Before the actual formation of pus, leeches should be freely applied—and aperients given, aided by abstemious diet. If matter forms, its exit should be promoted through the gum by fomentations in the mouth, and cold applications to the face.

As soon as the abscess has approached the surface, the pus should be evacuated. This treatment, however, is only palliative; for as long as the roots remain in the socket, the opening through which the matter has passed, will continue fistulous, and pus will ooze through it. The removal of these roots will prove the permanent cure of the disease.

We must pass over several instructive sections of the work before us, and only glance at a few of the subjects en passant.

VI. Effects of Mercury on the Teeth and Gums. The irritation produced in the gums is a pretty fair criterion of the constitutional effects of mercury. It is well known that, in some constitutions, a single dose of mercury will induce pyalism.

“From the very general use of this medicine, and still more from the careless and profuse manner in which it is sometimes administered, it may be considered as one of the most common causes of the diseases, to which the teeth and their containing parts are liable. I have already alluded more than once to its influence, in producing a tendency to gangrene as well as total necrosis of the teeth—inflammation, and consequent suppuration in the alveolar periosteum alveolar abscess—sponginess, ulceration, and absorption of the gums, the deposition of salivary calculus, &c. But these, although the most frequent consequences of an excessive use of mercury, or of its more moderate administration under a peculiar idiosyncrasy of constitution, are not the only, or the most severe results.

Caries and necrosis of large portions of the alveolar process, sometimes extending far into the body of the bone, are occasionally found to follow a profuse course of this medicine. In the diseases of infancy and childhood, mercury is too often administered by the mother or the nurse, with a degree of careless excess which ultimately, if not immediately, produces severe and irremediable injury." 245.

Sloughing of portions of the gum, accompanied by extensive ulcerations surrounding the dead part, is another consequence of excessive mercurial action, the constitutional irritation resulting from which, is sometimes very severe.

"In cases of excessive sponginess of the gum, whether accompanied with ulceration or not, in thickening of the alveolar periosteum, and other similar affections, no treatment will be found effectual, until the medicine itself is discontinued. The use of astringent lotions will be found serviceable; and the excessive and disgusting factor may be corrected by the frequent use of a wash composed of the chloruret of lime or of soda, very much diluted. It is not, however, whilst the mercurial action is still kept up in the system, that the only remedy to be depended upon for the permanent relief of the gums, can, with propriety, be had recourse to; namely, the free and deep application of the lancet. But when the medicine has ceased to act, and the swelling and other symptoms have assumed a chronic form, the vessels of the gums should be unloaded by carrying the lancet freely through their substance, down to the alveolar processes; and the collapsed state of these parts may then be in a great measure preserved by the use of strong astringents. The bleeding should be repeated as soon as a return to the former turgid state is observed in the gum. If the lancet be used during the action of the medicine, the result will very often be the occurrence of unhealthy ulceration, which it will be very difficult to heal, as long as the mercury is persevered in." 247.

VII. *Disease of the Antrum Maxillare.* The mucous membrane lining this cavity is readily excited to inflammation by any cause acting on the pituitary membrane of the nose—but especially from irritation produced by the teeth.

"When inflammation of this cavity is produced by a tooth—whether from the exposure of its internal membrane, if the tooth be living; or, if dead, by the irritation which it excites as an extraneous body—it often assumes a more severe and important character, both in its present symptoms and its future results. The teeth which are most commonly found to occasion inflammation in the antrum, are, as might naturally be inferred from their situation, the first and second molars, and the second bicuspid; though it sometimes happens that the first bicuspid, or even the cuspidatus, and, still more rarely, the dens sapientiae will produce this effect. When, from constitutional irritability, arising from derangement of the digestive organs, general debility, or any other cause, irritation is produced in the sockets of any of the teeth now mentioned, the usual symptoms which precede alveolar abscess, and which have already been described, are often followed by the occurrence of deep seated pain in the body of the bone, which, although generally of a dull, heavy, aching character, is frequently interrupted by acute lancinating paroxysms darting across the cheek towards the interior of the nostril, and backwards in the direction of the tubercle of the maxillary bone; this is accompanied with a greater or less degree of general tumefaction of the cheek, and with circumscribed patches of a florid colour upon the skin; and these parts, as well as the integuments and periosteum of the surrounding bone, are more or less painful on being pressed.

"The inflammation should be at once reduced by the free application of leeches to the cheek; the state of the stomach and bowels must be carefully attended to, and the tooth or root, which had produced the irritation, should be immediately extracted." 252.

If the case be neglected, the mucous secretion from the lining membrane becomes altered in its character, assuming a purulent form. The natural opening into the nose becomes obliterated—sometimes permanently so, by adhesive inflammation. The consequent retention of the mucous secretion ultimately produces caries of some part of the parietes.

"The term abscess, as applied to the disease in question, has given rise to very mistaken notions of its nature, and not less erroneous principles of treatment. A reference to the structure of the antrum would appear to be sufficient to point out the improbability, to say the least, of the occurrence of abscess in such a situation. That a mucous membrane covering, in a thin layer, the whole internal surface of such a cavity, should become the seat of all the consecutive steps of true abscess, is a statement bearing on the face of it an obvious absurdity. The disease is, in fact, nothing more than an altered secretion of the membrane. In its healthy state, this fluid is exactly similar to that which is formed by the Schneiderian membrane; it is equally fluid, inodorous, and transparent. The first effect of inflammation is to increase its quantity, and afterwards to render it thicker and more tenacious. It frequently becomes even glairy in its consistence; but, in this respect, it is liable to considerable variation. At length it assumes an opaque whitish or yellowish colour, and resembles in every respect true pus. Whether this change is confined to an alteration simply in the natural secretion of the part, or whether some of the mucous follicles may become the subjects of suppuration, and thus a mixture of mucus and of true pus be formed in the antrum, is, perhaps, in some measure doubtful. But that the former is most probably the true state of the case is, I think, supported by the gradual steps by which the secretion becomes changed, as described above. In proportion to the degree of inflammation which has existed—its duration—or the confinement of the purulent secretion within the cavity, it becomes more or less fetid; and, in cases where the nasal opening has been long closed, the fætor, when the matter is evacuated, is intolerable, even where no disease has taken place in the bone." 254.

It is usually a considerable time after the occurrence of inflammation before the secretion becomes puriform in a decided and unequivocal manner. Mean time the symptoms before described increase in intensity—the pain is more severe—the cheek becomes more tumid—the redness augments—and, if the nasal opening has not been obliterated, a discharge of purulent mucus takes place from the nostril—especially when the patient lies on the opposite side. In this state things may long remain, with little other variation than increase or decrease of the discharge, arising from variations of the health, or other adventitious circumstances. But, in scrofulous or very debilitated constitutions, caries or exfoliation of the bone will sometimes take place. When an early obliteration of the nasal opening obtains, and the matter is pent up, an enlargement of some part of the parietes of the antrum ensues, attended with much distress and deformity. The usual termination of such cases is caries and exfoliation of some part of the bony parietes, with fistulous opening on the cheek.

"*Treatment.* From the account which has been given of the nature of this disease, it will be obvious that the indications which are required to be fulfilled in its cure are threefold. The first is the evacuation of the contained fluid, in those cases where the nasal opening is closed; secondly, the correction of the diseased condition of the membrane; and, thirdly, the removal of such portions of bone as may have become carious.

"The opening of the antrum for the purpose of allowing the escape of the accumulated fluid, is generally a very simple operation. It consists in most cases of nothing more than the introduction of a trocar of a suitable description into the antrum, through the alveolar cavity of some one of the teeth, which are situated immediately beneath it. The trocar which is generally used for this purpose, is bent at a right angle at about an inch from the point; but I have always found this a very inconvenient and tedious instrument. I have, for several years, used a perfectly straight one, with greater facility and expedition; and the direction of the alveoli of the upper jaw is so favourable for its introduction, that I have never found the least difficulty in opening the mouth sufficiently wide to enable me to avoid any interference with the teeth of the lower jaw, or with the cheek. The point is three-sided, and should be very sharp." 260.

For the first few days warm water only should be injected, and leeches, if necessary, be applied—after which stimulating injections are to be thrown up, as a solution of sulphate of zinc, or tincture of myrrh.

VIII. *Neuralgia*. Our space being nearly filled up, we are obliged to pass over several sections, in order to devote a page or two to the painful affection now under consideration. The object of Mr. Bell, in this section, is to assist in forming some discrimination between two distinct forms of neuralgia, "which have hitherto been confounded with each other," and thus to lead to a more certain prognosis and a less empirical method of treatment.

"Having for some years past paid no inconsiderable attention to the different forms of the complaint, I have long since come to the conclusion that two distinct affections—distinct in their causes, and equally so in the effect which different remedies are found to exert upon them—have been confounded under these terms; the one constitutional in its cause, and curable by general remedies; the other local, which, though occasionally relieved to a certain degree by such treatment, can only be permanently cured by the removal of the local cause, which, unhappily, often lies too deep to be within the reach of any operation.

"It must be confessed that the symptoms of these two affections are so similar as to be readily confounded, and perhaps it would be difficult to lay down any one character which should infallibly distinguish the one from the other. There are, however, some general diagnostic symptoms which, after having seen many cases, will, I believe, enable the practitioner to decide with considerable certainty in any well-marked case.

"In those which have a constitutional origin, periodical returns of the paroxysms are, if my views be correct, an invariable symptom. This may vary to a great extent, not only in the degree, but also in the regularity which may characterize the exacerbation of pain. In some cases the pain is incessant, and almost always equally severe; and it is only by careful attention, that its periodical increase can be ascertained. In others, not the slightest painful sensation is perceived during the twenty-four hours, with the exception of a distinct and certain period, which never fails, and never varies, and during which perhaps the agony is intense.

"In the local disease, on the contrary, the pain is either continual, without any marked paroxysms of increased suffering; or the attacks are sudden, frequent, and interrupted by intervals of perfect ease, but recurring from time to time, and, in both cases, without any regular periods. This is the most obvious diagnostic character which has appeared to me to distinguish the two diseases. Further observations may perhaps enable us to add other and more certain marks of distinction; but even this will, as I believe, be found generally sufficient to indicate the nature of the disease." 312.

In respect to the constitutional neuralgia, it appears to our author that no cause acts more frequently in producing, or at least increasing the disease than violent mental agitation, or long-continued anxiety. Numerous cases have come under Mr. Bell's notice, where the origin of the disease could be traced to loss of friends, reverses of fortune, disappointed hopes, and similar causes of mental depression.

The recurrence of such circumstances during intervals of relief is almost sure to produce relapses of the complaint.

"There is one circumstance which is of the utmost consequence to attend to in this complaint, and which is an universal attendant upon its attacks, whether as a cause or a consequence. I mean a more or less deranged state of the digestive functions. I never saw a case of constitutional neuralgia without a white tongue; and I never knew one cured by any of the usual constitutional remedies, until the digestive organs were restored to a more healthy condition." 316.

The publications of Mr. Hutchinson induced a general adoption of carbonate of iron, as a remedy in neuralgia, but it was found often to fail—perhaps from inattention to the chylipoietic functions rather than to the inefficacy of the medicine.

"In many cases in which this remedy has failed, I have found the use of the sulphate of quinine completely successful. This admirable medicine, possessing all the virtues of the cinchona without the disadvantage of its bulk, by which the stomach was so often injuriously loaded, is one of the most important acquisitions in the treatment of this disease. I could mention numerous examples in which it has been entirely successful, and many others which have been materially benefited by its use; but the following case, in which no other remedy was employed, will be sufficient:—

* Mrs. W., a lady about fifty years of age, had for four years been suffering the most excruciating torture from neuralgia, which attacked the branches of the suborbitary nerve. The paroxysms were periodical and perfectly regular. They occurred invariably at the hour when the family usually took tea, and it frequently happened that she could not remain at the table on account of the severity of the pain. It rarely occurred at any other period with any considerable violence, but occasionally in case of indisposition or of sudden mental excitement, it would come on at any other time; this, however, never interfered with its regular recurrence at the stated period which I have mentioned. The first attack of the disease had been produced by extreme mental agitation arising from the sudden death of a dear friend. When I first saw her, she had been under the care of her medical attendant, who had administered large quantities of the carbonate of iron without any advantage. The state of the stomach and bowels had not been sufficiently attended to. The tongue was considerably furred, the bowels habitually costive, and the appetite uncertain.

"As the attacks were so regularly periodical, and as my patient was naturally of a tranquil and cheerful disposition, I could not but hope for a favourable termination of the case. The first step which was taken was to regulate the state of the bowels, for which the following mild formula was found sufficient:—

R. Pil. Hydrarg.

Extr. Hyosciami, ā. gr. ij.

Extr. Colocynth. Comp. gr. iv. M. fiat massa, in Pilulas duas dividenda, alternâ nocte sumend.

"After a few days I ordered the sulphate of quinine to be taken in doses of three grains, three times in the day, and as it was essential to keep the mind as tranquil as possible, and to prevent it from musing upon subjects of a depressing nature, a short tour, in company with part of her family, was resolved upon. The remedies above mentioned were continued with great regularity and with the most complete success

In the course of three months the complaint has entirely removed, and has not since returned." 318.

Our author, however, like most other practitioners, has met with cases which resisted the quinine. In some of these arsenic was effectual. It appears that Mr. Bell himself was a martyr to neuralgia during a long period of thirteen years, and was ultimately cured by arsenic. Mr. B. has recorded a sketch of his own case, and, as it is short, we shall here insert it.

"It was, to the best of my recollection, in the spring of the year 1812, that I was attacked when walking, with a most acute and severe pain in the left heel, about the spot of the insertion of the plantaris muscle. It was of a fluttering character, with sudden and repeated flashes of a more acute kind, which were but momentary in their duration. This first attack remained about a quarter of an hour, and then wholly disappeared. It recurred, however, at intervals, with more or less regularity, until at length it assumed a more perfect intermittent character, the paroxysms returning every evening; and this occurred with little variation during the whole period of its continuance. During the paroxysms the skin was somewhat redder than usual, and a little swollen; and the surface was excessively irritable, especially when lightly touched. At all other times, however, it was perfectly healthy, and did not at all interfere with the action of walking, nor did previous violent exercise appear to increase the severity of the pain. The duration of the attacks varied from a fortnight to three months; during which periods an evening seldom passed without several hours of absolute torture, and the intervals also varied in a similar manner; I have repeatedly passed two or three months without pain, and on one occasion it did not return for more than a year. It was invariably brought on by the occurrence of any source of mental agitation or depression; and continued a longer or shorter time, according to the degree or duration of such exciting cause. The local remedies which I had recourse to were leeches, perpetual blisters, electricity, belladonna plasters, and a multitude of others, all equally useless. The only thing which gave me even temporary relief, was plunging my heel into the coldest water that could be procured; this relieved the pain as long as the part continued cold but as soon as it became warm again, the pain returned with the same violence as before. I had recourse, at different times to various remedies directed to the constitution: cinchona in powder, carbonate of iron, sulphate of quinine, &c., were all freely and fully tried, and all without success; at length, at the commencement of a rather violent attack in 1826, I was induced at the earnest instigation of my friend, Mr. Leese, to try the arsenical solution. The agony which I suffered, led me to take larger doses than my kind friend advised, and than perhaps, would generally be advisable, at least, at the commencement. I took eight drops three times a day, for about a week, at which time the stomach became excessively irritable, the whole nervous system was in a state of morbid excitement—I was obliged at once to discontinue the medicine, and to go into the country; but the disease was cured, and to the present hour I have had no return." 320.

The irritating effects of arsenic on the stomach and nervous system would render it prudent to try other means first.

On local neuralgia, or that caused by local injuries, pressure, or other sources of irritation, we need not dwell. The sagacity of the practitioner will be required to detect the nature and seat of the local cause, and no general rule can be laid down. We must now take our leave of Mr. Bell, whose work, we have no doubt, will become a class-book on the important subject of dental surgery.

XII.

ELEMENTS OF MEDICAL STATISTICS; CONTAINING THE SUBSTANCE OF THE GULSTONIAN LECTURES, &c., WITH NUMEROUS ADDITIONS ILLUSTRATING THE COMPARATIVE SALUBRITY, LONGEVITY, MORTALITY, AND PREVALENCE OF DISEASES IN THE PRINCIPAL COUNTRIES AND CITIES OF THE CIVILIZED WORLD. By F. Bisset Hawkins M. D. &c. &c. 8vo. pp. 234. 1829.

It is a melancholy, but certainly a useful labour to enquire into the causes which shorten man's brief span of existence in this sublunary scene. There can be no doubt that nature designed that the whole of the three-score years and ten should be enjoyed by the human species, and that all men should ultimately die the DEATH of NATURE. Yet, little more than one half of those who see the light of Heaven are found to run even this short race.

"Independently of the light which this study throws upon Medical Science, it affords the most valuable illustrations of the history, manners and customs of mankind, and a just criterion of the progressive or retrograde movements of society. Political philosophy can make few steps without an occasional recourse to its aid, and none at all without a reference to its stores, on explaining the principles which regulate the population of states. Malthus, who may be in some degree considered as the father of that subject, from the maturity to which he has reared it, remarks, that 'we may promise ourselves a clearer insight into the internal structure of human society from those inquiries. But the science may be said yet to be in its infancy, and many of the objects on which it would be desirable to have information have been either omitted, or not stated with sufficient accuracy.'" VII.

Some of these inaccuracies have been corrected since the time when Malthus wrote, and our intelligent author modestly states that he should be amply rewarded if the present humble Essay should form a repository of the labours of his predecessors—"if it should become an early mile-stone on a road which is comparatively new, rugged, and uninviting to the traveller, which gradually discloses the most interesting prospects, and will, at length, largely recompense the patient adventurer."

The work is divided into sixteen chapters, and we shall endeavour to give a rapid sketch of these or most of them.

CHAP. I. This chapter embraces a comparison between the value of life in ancient and modern times. The author sets out with applying a piece of very flattering unction to the souls of modern *Æsculapii*.

"Medical statistics afford the most convincing proofs of the efficacy of medicine; it is one of the easiest arguments that can be employed to refute the vulgar notion (and one sometimes carelessly countenanced by medical men), that nature is alone sufficient for the cure of disease, and that art as frequently impedes as it accelerates her course, The pow-

ers of self-restoration are in no diseases more conspicuous than in fever. But if we form a statistical comparison of fever treated by art, with the results of fever consigned to the care of nature, we shall derive an indisputable conclusion in favour of our profession.* Hippocrates has left a frank and explicit statement of the history and fate of forty-two cases of acute disease, in which it does not seem that any therapeutical plan was adopted, if we except glysters and suppositories in a few, and blood-letting in one. Amongst these were thirty-seven cases of continued fever without local affection. Of the thirty-seven, twenty-one died, above half of the whole. But if we examine the returns of the Fever Hospital of London, we find (in 1825) that the total mortality was less than one in seven; and half of these deaths occurred within seventy-two hours of the admission of the patients,—a circumstance which indicates that several entered at a period of disease when the hope of recovery was extinct. In the Dublin Fever Hospital we find a still lower mortality: the average from 1804 to 1812 was one in twelve: and in the clinical wards at Edinburg, in 1818, the mortality of fever was also about one in twelve. Of five cases of local inflammations, which Hippocrates records, four were fatal; of all his forty-two patients, in short, twenty-five were lost: a termination which throws no shade over his skill, but only brings to light his love of truth. The mortality belonged to the age, and not to the physician; and we may reasonably infer, that under other practitioners of his time and country, it was even more severe. It is curious to observe, that of the five cases of local inflammation, the only one which survived was the solitary instance in which bleeding was employed,—a pleurisy. We perceive, that one out of two acute cases may recover by the almost unassisted efforts of nature, but that under the medical protection of our own age and country, six out of seven, or even eleven out of twelve, are likely to survive, according to the period of the disease at which they are placed under treatment." 5.

We shall not stop to inquire whether a comparison of the practice of Hippocrates with that of the fever-hospitals of London and Dublin be calculated to let in much light on the influence of modern medicine on the prolongation of human life. To form a just estimate, we must take into consideration the benefits arising from quackery, and also from the unavoidable mistakes of the best informed practitioners. If the true state of the case could be seen with these deductions, we should tremble to look at the picture!

Dr. H. instances the influence of various mechanical improvements on the air of certain districts, as the Island of Portsea, which was freed from agues by draining. Unfortunately the last two or three years have shewn a return of agues, not only in the best drained places, but in localities where ague had not been known in the memory of man before. The mortality at Portsmouth in 1800, was 1 in 28—in 1811 it was only 1 in 38—while at Plymouth, which is considered so remarkably healthy, it was 1 in 28.

We have no correct information respecting the longevity of the Greeks—and but scanty materials as to that of the Romans. In a small tract of Italy, there is an enumeration of 54 persons who had attained the age of

* Blane, Select Dissertations.

100—forty who were between 100 and 140—and two individuals who had got beyond 150 years! Dr. H. says this calculation is highly favourable to the longevity of the Romans, but it only relates to a "particular and rural district." True. But could any particular or rural district in England present such a spectacle?

Lucian has recorded that out of 1000 persons who died, 398 were above 60 years of age. This is considered a vague assertion, and is opposed by the testimony of Domitius Ulpianus.

"This earliest authority on the subject of longevity was a lawyer in the reign of Alexander Severus, of whom he became the secretary and principal minister. From the want of hospitals among the Romans, from the humble condition of their medical attendants, from their gross sensuality, inactive habits, abuse of the bath, and manner of dress, as well as from the unhealthy state of their situation (which even then appears to have been a source of alarm,) we might have anticipated that longevity would not become common; and the authority of Ulpian corroborates the opinion. According to him, registers of population, puberty, age, sex, disease, and death, were kept with exactness by the censors, from the time of Servius Tullius to Justinian, and comprehend a period of ten consecutive centuries. But, unfortunately, these registers embrace the citizens of Rome alone and not that large part of the population composed of slaves. The inferences to be drawn from them relate accordingly to select, or *picked* lives, and not to the mass of society. From observations formed on 1000 years, the expectation, or mean term of Roman life, has been fixed at thirty years. To make a just comparison of the value of life in Rome and in England, we must select subjects in England similarly circumstanced, of a condition relatively easy; and the result discloses an extension of life remarkably in our favour. Mr. Finlayson has ascertained, from very extensive observation, on the decrement of life prevailing among the nominees of the *lontines*, and other life-annuities granted by authority of Parliament, during the last forty years, that the expectation of life is above fifty years for persons thus situated, which affords our easy classes a superiority of twenty years above the Roman citizen. The expectation of life for the whole mass of Britain is at least one in forty-five, which affords to all our classes a superiority of fifteen years above even the easy classes of the Romans.

"The mean term of life among the easy classes of Paris is at present forty-two, which gives them an advantage of twelve years above the Romans." 7.

The expectation of life in Rome in the third century of the Christian æra was as follows:—From birth to 20, there was a probability of 30 years—from 20 to 25, 28 years—from 25 to 30, 25 years—from 30 to 35, 22 years—from 35 to 40, 20 years—from 40 to 45, 18 years—from 45 to 50, 13 years—from 50 to 55, 9 years—from 55 to 60, 7 years—from 60 to 65, 5 years. The computation did not extend beyond this.

It is certainly gratifying to compare the above with the results of modern researches on the probability of human life. At 20 years of age, Mr. Finlayson shews us a probability of 40 years—at 40, he allows 29 years—at 50, he promises 22 years—at 60, he admits 15 years!

"At Geneva, good mortuary tables have been preserved since 1560, and the results are in the highest degree curious and satisfactory. It appears that, at the time of the Reformation, half the children born did not reach six years of age; in the seventeenth

century, the probability of life was about eleven and a half years; in the eighteenth century, it increased to above twenty-seven years. We arrive at the remarkable conclusion, that, in the space of about three hundred years, the probability of life to a citizen of Geneva at his birth, has become five times greater. The *mean life* was thus, in one century, eighteen years; in the next, it grew to twenty-three; in the middle of the next, it rose to thirty-two; and, finally, during the present century, from 1815 to 1836, it amounts to thirty-six years." 10.

Such a cheering prospect would almost induce the hope of immortality, if things went on thus improving. But, alas! the final period is still the same, although more reach the utmost goal than formerly.

CHAP. II. In the second chapter of the work, our indefatigable author adverts to the progressive changes and present state of mortality in Great Britain. We can only glance at a few of the particulars. In 1780, the annual mortality of England and Wales was 1 in 40. In 1790, it diminished to 1 in 45. In 1801, it continued to diminish, but not at the same rate—it became 1 in 47. This moderate rate of improvement is attributed to the scarcity which afflicted England in 1795 and 1800. In 1811, the ratio of death was 1 in 50—and finally, in 1821, the annual mortality sinks to one in 58 or 60. Thus it has decreased from 1 in 40 to 1 in 58 in the course of forty years.

There is great difference in the ratio of mortality in the different counties of Great Britain, varying from 1 in 47 to 1 in 72, Middlesex and Sussex being the two extremes. Pembrokeshire and Anglesey have only 1 death yearly in 83 individuals—the lowest rate of mortality that has been known in Europe. The mortality in each county is mainly influenced by the proportion of large towns which it includes.

"In Lincolnshire the amount is only 1 in 62, although it is particularly the seat of ague; but this moderate share of mortality is probably due to the large proportion of dry and elevated districts to the fenny; if not to the circumstance which Dr. Wells has remarked, that phthisis pulmonalis is but little observed in places infested with the exhalations which produce intermittent fever." 17.

But the decline of mortality is even greater in our cities than in the rural districts. In London, the total deaths, in the year 1697, were about 21,000—whereas in 1797, the amount was only 17,000. This decrease in the absolute mortality is great, when we consider the immense augmentation of the metropolis in a century. It is remarkable that this healthy condition of London seems to have been chiefly the produce of the last 50 or 60 years. In the middle of the last century the annual mortality of the metropolis was 1 in 20—it is now 1 in 40. Thus the chances of existence have just doubled in the course of 70 years—a progress unparalleled in the history of any other age or country.

"One city alone, in Europe or in England, approaches to London in the value of life proportionately to its size; it is the second in England in number of inhabitants, the seat

of manufactures—Manchester. The mortality of Manchester was, about the middle of last century, 1 in 25; in 1770, 1 in 28. Forty years after, in 1811, the annual deaths are diminished almost beyond belief, to 1 in 74; but the improvement does not stop even there, for, in 1821, they appear to become still fewer, although the population has been quadrupled during the 60 years through which the deaths have so diminished. It is due to the memory of Dr. Percival and Dr. Ferriar, that we ascribe a large share of this improvement of health to certain regulations of police, particularly with respect to ventilation, recommended and introduced by them into Manchester.” 20.

CHAP. III.—*Superior Salubrity of England.*

In France, the annual deaths in 1781 were 1 in 29 for the whole population—in 1802, they were 1 in 30—in 1823, 1 in 40. In Paris, about the middle of last century, the mortality was 1 in 25—at present it is about 1 in 32. It has been calculated that, in the 14th century, the mortality in Paris was 1 in 16 or 17. In Sweden, the range of mortality has decreased from 1 in 35 (1755 to 1775) to 1 in 48. Berlin has augmented in salubrity during the last 50 or 60 years, from 1 in 28 to 1 in 34.

“Since the late peace, the principal governments of Europe have paid much attention to statistics, and we possess very instructive returns from nearly all the countries, cities, and hospitals on the Continent. A comparison of these results enables us to submit a very interesting conclusion, and one which we are not aware to have been as yet generally received, namely, that the mortality of Great Britain, its cities, and its hospitals, is greatly inferior to that of any other country in Europe; and that it is incontestible that Great Britain is at present the most healthy country with which we are acquainted; and that it has been gradually tending to that point for the last 50 years. In the comparisons which we shall have occasion to make, in order to support this assertion, we shall carefully abstain from reproducing the tables of remote periods, which have been often previously discussed, and shall be confined to the most recent and genuine details. It is remarkable, that this superior value of life in Great Britain is not confined to any particular districts, or classes of individuals. To whatever point we turn our view, the advantage is still the same: the man of affluence, the pauper-patient of the hospital, the sailor and the soldier on active service, the prisoner of war, the inmate of a gaol, all enjoy a better tenure of existence from this country than from any other of which we have been able to consult the records. It has been long the fashion, both abroad and at home, to exhaust every variety of reproach on the climate of our country, and particularly on the atmosphere of London; and yet we shall find that the most favoured spots in Europe, the places which have long been selected as a resort of invalids, and the fountains of health, are far more fatal to life than even this great metropolis.” 31.

The annual deaths, on the average, throughout the whole of England and Wales, is nearly one in 60. The country which approaches nearest to us in salubrity, is the Pays de Vaud, where the average mortality is 1 in 49. Sweden and Holland present the same standard nearly, 1 in 48. Next on the list is France, where 1 dies annually out of 40—a proportion precisely similar to that of London. The kingdoms of Prussia and Naples follow—

ranging from 1 in 33 to 35. The annual mortality at Montpellier is greater than in London, which equals in salubrity the department of the Hérault, "the southern, the fertile, and the long supposed most salubrious district of France, of which Montpellier is the capital."

"Finke, a German writer who wrote on medical geography in 1792, speaks with surprise and reprobation of the custom which then prevailed in England of sending invalids to the south of France; and declares that the cutting winds of those quarters annually destroyed many of those wanderers in quest of a milder sky.

"The annual mortality of Nice, though a small town, and enjoying a factitious reputation of salubrity, is 1 in 31; of Naples, is 1 in 28. Leghorn is more fortunate, and sinks to 1 in 35. We instance those places as being the frequent resort of invalids; but how astonishing is the superiority of England, when we compare with these even our great manufacturing towns, such as Manchester, 1 in 74; such as even Birmingham, 1 in 43; or even this overgrown metropolis, where the deaths are only 1 in 40. But if we take indiscriminately the other great cities of Europe, their inferiority in respect to the value of life is equally pointed; in Paris, for instance, the annual deaths are about 1 in 32, in Lyons and Strasburg the same, in Barcelona the same: Berlin approaches a little nearer to London, it reckons 1 in 34. Madrid loses 1 in 29. Rome, Amsterdam, and Vienna, are last in the scale of life; in Rome the deaths are annually 1 in 26, at Amsterdam they are so numerous as 1 in 24, and at Vienna 1 in 22; we perceive that the inhabitant of London has almost a twofold advantage in this respect." 33.

We may remark upon the above passage that, although the mortality may be greater in Rome, or Naples, or Nice, than in London, it does not follow that particular complaints, as incipient pulmonary affections, may not be benefitted by a *temporary* residence during a *particular season* of the year in the above localities. A man may die of heat and malaria at Rome in the month of August—but his life may be preserved by a residence there during December, January, and February, in consequence of the mildness of the air, compared with Hamstead or Highgate. It is hardly fair, therefore, to laugh at the invalid who migrates during the Winter or Spring to a milder climate than that of England, though the latter, taking the whole year round, may be more salubrious than the climates of the most favoured spots on the Continent.

CHAP. IV.—MEDICAL STATISTICS OF COUNTRIES.

FRANCE. It is calculated that about half of the children born live to 20 years, and a third to 45 years. The lowest annual mortality is at the age of 10, when it is only 1 in 130. At the age of 40 it is 1 in 53. The probability of life in France, at the age of 40, is 23 years. The mortality increases amongst the poor and diminishes among the affluent. In the wealthy departments of France, life is protracted 12 years beyond its course in those which are poor. Thus, in the departments of the Calvados of L'Orne and La Sarthe, one individual dies annually in 50; while, in

the twelfth Arrondissement of Paris, the annual deaths are 1 in 24!! Such is the influence of condition, or the absence of fatigue and privation on the frame, that, during the years 1816 to 1823, the mean height of young men fit for military service has been found to be, in Paris, 5 feet, 9 inches, and $1\frac{1}{2}$ lines—but only 5 feet, 1 inch, and $9\frac{1}{2}$ lines for the suburbs of Sceaux and St. Denis. The same fact has been ascertained in Lyons and its vicinity.

PRUSSIA. One birth in 13 is illegitimate in Prussia. The average mortality is about 1 in 35.

AUSTRIA. A sixth of the whole population is illegitimate in the province of Styria. The mortality is 1 in 38. In *Russia*, we find the mortality 1 in 41. In America (United States,) it is calculated that, on an average, 1 in 40 die annually—the rate of France. In South America, Humboldt calculated the average mortality at 1 in 30, which is a greater proportion than now occurs in any country of Europe.

CHAP. V.—MEDICAL STATISTICS OF CITIES.

“It is well known, that in any given country the deaths of a city are more numerous than those of the rural districts. This difference is principally felt in the first five years of life, when many more die in London than in the country. From 5 years of age to 20 the deaths in London are fewer. Between 20 and 50 many more die in London, on account of the large annual influx from the country. In all cities a large portion of disease and death is to be assigned to the constant importation from the country of individuals who have attained to maturity; but having been previously habituated to frequent exercise in a pure atmosphere, and to a simple regular diet, are gradually sacrificed to confined air, sedentary habits, or a capricious and over-stimulating food. These causes are not equally fatal to those who have passed their early years within the walls of a city; and after the age of 50 the proportion of deaths in London is smaller than in the country. Jenner, and very recently Dr. Baron, have made some curious experiments on animals, which indicate that a loss of their open range and natural nourishment has with them, also, a tendency to disorganize and to destroy.

Dr. Baron placed a family of young rabbits in a confined situation, and fed them with coarse green food, such as cabbage and grass. They were perfectly healthy when put up; in about a month one of them died: the primary stop of disorganization was evinced in a number of transparent vesicles studded over the external surface of its liver.

“In another, which died nine days after, the disease had advanced to the formation of tubercles on the liver. The liver of a third, which died four days later still, had nearly lost its true structure, so universally was it pervaded with tubercles. Two days subsequently a fourth died: a considerable number of hydatids were attached to the lower surface of the liver. At this time Dr. Baron removed three young rabbits from the place where their companions had died to another situation, dry and clean, and to their proper and accustomed food. The lives of these remaining three were obviously saved by this change. He obtained similar results from experiments of the same nature performed on other animals.” 55.

In **GLASGOW**, the average annual mortality is about 1 in 44 persons. In

Paris, the poor and the rich occupy the two extremities of the scale. The mortality in the one is nearly double that in the other. The average is 1 in 32.

"The number of violent deaths in 1823 was 690, of which 390 were cases of suicide.

"Reviewing, on one side, the great political, moral, and physical events, which have occurred at *Paris* during a succession of years, and on the other the progress of its population, Villermé has ascertained, that whenever the people have suffered from any cause, the deaths have correspondingly increased, the births have decreased, and the mean duration of life has been shortened. In periods of prosperity he has found results directly opposite to these. The mean duration of life in *Paris* is 32 years and some months.

"It was formerly estimated, that one-third of the inhabitants of *Paris* died in the hospitals; but Dupin has lately calculated that half the deaths in *Paris* take place in the hospitals and other asylums of charity. Not a fourth part of the inhabitants are buried at private cost." 59.

In GENEVA, the average mortality for the four years ending in 1823, was 1 in 43—which is a much greater mortality, by the way, than in some of our largest manufacturing towns, as Glasgow, Manchester, and Birmingham.

PETERSBURG. It is curious that the burials exceed the births in the Russian capital by 134 to 100. The Russian attempt to explain this by the annual influx of persons from the provinces. But this influx is not peculiar to St. Petersburg. The last-mentioned city and Stockholm are the only known metropolitan cities which present the preponderance of death over production. The annual mortality of the Russian capital is one in 37.

BERLIN. From 1747 to 1755, the annual mortality of Berlin was 1 in 28. Between 1796 and 1799, it improved to 1 in 29 1-11. Here the beneficial change was retarded by the ravages, the losses, the disappointments of war, and from 1802 to 1806 it had retrograded to 1 in 27; but from 1816 to 1822, a period of exultation and tranquillity to the Prussians, the value of life took a remarkable leap, and the annual deaths fell to less than 1 in 34." 61.

VIENNA. In the middle of the last century, the mortality of Vienna was 1 in 20; and it has not improved in proportion as other cities of Europe. According to the most recent calculations, it is, even now, as 1 in 22½.—Among 10,530 deaths, scarcely 38 persons are found who have attained the age of 90.

"The excessive spirit of regulation, the dread of novelty, the restrictions imposed on the medical profession, and political causes which need not to be enumerated, appear to have retarded the natural progress of this city. The over-weening *paternity* of the Government interferes with the trivial concerns of the citizens, in the same manner in which an arbitrary and untaught father sometimes restrains the useful impulses of his children, while he permits an easy vent to their baser propensities." 63.

PRAGUE, the capital of Bohemia, has only one-third the population of Vienna, and is much healthier. The superior longevity of the Jews is

strongly marked in this city. One death is annually observed among 26 of the Israelites, while it is 1 in $22\frac{1}{2}$ among the Christians. Instances of considerable longevity, especially among the women, are not rare. Contrary to the usual observation, longevity is confined to poverty, and married life.

"According to an average of several years no nobleman, no wealthy person, no bachelor, and no unmarried woman have passed the age of 95. This is an interesting fact, but it is an *extreme* and an insulated one, and does not militate against the general *conservative* tendency of prosperity which a variety of evidence seems to establish." 64.

PALMERO. Mortality here is 1 in 31. January, October, and November, are the most fatal months—April, May, and June the most healthy.

LEGHORN. The average annual mortality here, is one in 35—among the Protestants and Jews it is only 1 in 48, which is attributed to their greater affluence.

ROME. From a recently-discovered fragment of Cicero (*de Republica*), an intimation is conveyed that the neighbourhood of Rome has been always unhealthy. Speaking of the choice of situation made by Romulus, he observes—"locum delegit in regione pestilente salubrem." The population appears to have been gradually decreasing till the last peace, which has gently revived it. In 1800 there were 150,000 souls—in 1810, only 123,000—within a few years it has gained 10,000. The annual mortality is about 1 in 25.

"There can be little doubt that the force of the aguish disposition of Rome might be considerably weakened by steady and well directed efforts supported by a proportionate capital; but it is to be feared that such a combination of circumstances will not readily meet at Rome. In 1816, 17 out of the 22 French students were attacked with intermittent fevers. The Villa Medici, in which they reside, was formerly healthy; but water brought at a great expense to embellish the garden had been suffered to stagnate there." 67

NAPLES. The annual mortality here is 1 in 28—a fact that one would not have expected in such a delightful situation, compared with pestilential Rome, where the mortality is less. The population of Naples is nearly three times that of the ancient mistress of the world!!

BRUSSELS. It appears from our author that at Brussels, "the month of May is most favourable for conception." The average mortality is very great, being 1 in 26.

AMSTERDAM. The population of this once great city is decreased, in consequence of declining commerce and political changes. And it is not a little curious as well as melancholy, to observe that its mortality has increased with the progress of decay. In 1777, the ratio of mortality was 1 in 27—a period when Amsterdam was one of the healthiest, as well as one of the most flourishing cities of Europe. The deaths have now increased to 1 in 24—and Amsterdam is one of the least healthy, as well as least prosperous, sea-ports of Europe. A decree has been issued, that after the 1st of January, 1829, no burials shall be permitted in towns or in churches throughout North Holland.

STOCKHOLM. "Drunkenness appears here, as at Berlin, to produce a large share of the mortality. In a recent year this city exhibited a singular instance of an excess of 1439 more deaths than births; a symptom which it is painful to observe in a brave and industrious people. This disproportion existed particularly amongst the garrison, and is ascribed to immoderate use of brandy. Our authority affirms that this vice destroys the happiness and prosperity of Sweden more effectually than any war has ever accomplished." 70.

CHAP. XI.—SUICIDE IN DIFFERENT PERIODS AND COUNTRIES.

Being obliged to pass over some chapters on the statistics of hospitals, we shall dwell, for a moment, on the melancholy subject of suicide.

Dr. Burrows has the merit of having first vindicated our country from the conjectural report of a peculiar tendency to self-destruction. The bills of mortality, on which Dr. Burrows founded his calculations, have been objected to by some foreigners, on account of their inaccuracies:—But a document has been lately published which enables us to satisfy the most fastidious sceptic on that point.

"It is well known that a coroner and jury are summoned to investigate every suicide which occurs in Westminster. Mr. Higgs, the coroner of the city of Westminster, made, in 1825, a report of the suicides committed in Westminster during the 13 years previous. In order to furnish easy means of comparison, we must premise that the population of Westminster, according to the census of 1821, was 182,444. We may add, for the use of strangers, that it is the centre of dissipation for the whole empire. During the 13 years from 1812 to 1824, the total number of suicides was only 290, a number which, if trebled, would be inferior in proportion to the returns made by the great cities of France and Germany.

"The number of males in this table is 207, of females only 83, which is a proportion of 5 to 2. The *Novembers* of these 13 years produce only 22, while the rate of the *Junes* is 34. In the years 1812, 1815, 1820, and 1824, November did not afford one suicide. The least prolific months were May and September, next August and October, and then November. During the latter eight years, a reduction occurred on the average of nearly six per annum. The annual average is a little more than 22 during the whole term. From motives of humanity, the juries gave a verdict of *insanity* in all but five instances. In 1825, a year marked by commercial distresses, the total number was 24: of these, two women had been seduced and abandoned, and one man cut his throat through jealousy, eight poisoned themselves, and eight were found hanging.

The annual number returned by the bills of mortality for London usually ranges between 30 and 50. After making every allowance, we may estimate the number of suicides annually accomplished in London and Westminster at about 100. In England and France a majority of the victims appear to be *unmarried*. In France, the proportion of married men to single amongst suicides has been rated as only 2 to 3.*

"Other countries certainly present a darker picture. We are not surprised at finding the number of 1300 recorded for Versailles in 1793, a year of political storm, and of dreadful anticipation to its inhabitants. In 1806, Falret asserts that the suicides of Rouen amounted to 60 during the months of June and July alone. Professor Grohmann notes a remarkable increase at Hamburgh: in 1816 the number was only 2, in 1820 it rose to 10, and 1822 produced so many as 59. In the small district of Frankfurt on the Main the number in 1823 was 100.

* "Dict. Sciences Medic. art. Celibat."

"In 1806, there were 300 at Copenhagen :—of late years the annual average has been 100 in 100,000 inhabitants. In Berlin, according to Casper, the proportion is 34 annually in every 100,000 inhabitants, and in Paris 49. The increase in Prussia, and particularly in Berlin, is extraordinary. In the 17 years following 1758, the proportion at Berlin was 1 suicide in 1800 deaths. But in the 10 years following 1787 the proportion is seen to double itself, becoming 1 in 900 deaths. In the 10 years following 1798, it is trebled; and in the 10 years ending in 1822 it arose to the formidable height of 1 in every 100 deaths. These numbers, large as is their amount, do not include many who are found drowned in the river, and whose fate is dubious. In 1817, the proportion for the whole Prussian nation was 1 in every 400 deaths. We must remark on the comparative frequency of this crime amongst boys in France and Germany. We should not venture to state the curious fact of the existence of a *suicide club* in Prussia, except on the authority of Dr. Casper, an eminent statistical writer resident in Berlin, a city where every work is submitted to the *censure*. This club consisted of six persons, who avowed openly their intention of destroying themselves and endeavoured to gain proselytes. Their absurdity excited more laughter than belief, but three instances occurred of conformity to principle, and at length all the six evinced their sincerity; the last shot himself in 1817." 165.

In Berlin, suicide appears to be more frequent among weavers and soldiers than in other classes of society. It is more common among the females of Paris than among those of Berlin, in a two-fold average—a fact that might be anticipated from the more retired and unambitious path of the German woman. During six recent years, 18 cases of suicide happened at Berlin, under the age of puberty—and 11 men above 70. So far more numerous are the civic than the rural cases, in Prussia, that while the proportion in towns is 14 in every 100,000 inhabitants, the country exhibits only 4 in the same number. This crime appears to find very few victims in Spain. In the whole of that country only 16 instances are officially reported to have occurred in the year 1826. In all Sweden there were only 153 suicides in the year 1823. In four years (1823-4-5-6) 4087 suicides took place in Russia!

"A *suicide club* is said to have existed lately at Paris, but the members were not likely to become numerous: they were 12, and the leading regulation directed, that one member should be annually selected to put an end to himself.

"Among Roman Catholics the disposition to suicide appears far less prevalent than in Protestant communities. It would be easy to dilate on the sources of this disproportion. Blumberbach made the observation in respect to Switzerland, and Casper has established it relatively to Germany. It is very rare among the *Jews* of Germany, partly from the dread of ridicule which disinclines them towards taverns, and partly from the beneficence of the wealthy members towards the indigent of their own race.

"Climate, then, cannot be considered as a cause, and no one will hereafter ascribe it to changes of weather." 171.

Passing over several chapters, we offer the following extract from the chapter on Climatology.

'When we speak of a healthy climate, it is gratifying to reflect that in most instances it is man himself who has in a great measure created these climates of health. Twenty centuries ago, England, France, and Germany, resembled Canada, and Chinese Tartary, countries situated like Europe, at a mean distance between the equator and the pole. Macchiavelli, in his early age, seems to have anticipated this truth: he re-

marks, in his quaint language, 'Unhealthy countries become wholesome by the multitude of men who inhabit them ; who at the same time are occupied in cultivating the earth, and who make the earth sane : the fires which they kindle purify the air : these advantages nature herself does not produce.'

"It is only by constant efforts of industry that the salubrity of any spot is maintained: when these are relaxed, or when prosperity and civilization decline, the seeds of disease are immediately deposited in the earth. The aguish disposition has been observed to increase at Rome in the same proportion that its population has diminished. On the other hand, it is well known that the climate of the United States has been remarkably improved by draining, cutting down trees, and the operations of agriculture ; and that spots which were impracticable, or fatal to the early settlers, at present afford a comfortable residence. The improvement that is continually taking place in the climate of America proves that the power of man extends to features of nature, which from the magnitude and variety of their causes seemed entirely beyond his control. At Guiana, in South America, within five degrees of the line, the inhabitants, living amidst immense forests, were a century ago obliged to alleviate the severity of the cold by evening fires. But by clearing the surface of the country even the duration of the rainy season has been shortened, and the warmth is so increased that a fire would now be deemed an annoyance. It thunders continually in the woods, but rarely in the cultivated parts.

"It appears certain that the climate of Europe has undergone a great change. If we compare its actual state with the accounts of ancient writers, a remarkable discrepancy is observed, which can only be explained by the influence of industry on the improvement of the soil ; and there is reason to believe that America will partake of the same happy amelioration when an equal length of gradual toil has been bestowed upon her. We are told by Cæsar, that the vine could not be cultivated in Gaul on account of its winter-cold. The rein-deer, now found only in the zone of Lapland, was then an inhabitant of the Pyrenees. The Tiber was frequently frozen over, and the ground about Rome covered with snow for several weeks together, which almost never happens in our times.

"Even on nations exposed to the same scorching sun the influence of *diet* seems to be more powerful in forming the constitution and the character than mere climate, as is evinced in the wide diversity existing between the Hindoo and the Malay. The *nature of the soil* is the earliest element which operates in creating a national character ; but religion and government produce a second, a more essential, a moral climate which ultimately determines not merely the health of citizens, but the existence of a state." 205.

The chapter on the influence of condition, profession, modes of life, &c. on longevity, contains much interesting information which we are obliged to pass unnoticed, in consequence of our narrowing limits. It was long a prevalent opinion that poverty was conducive to long life ; but the contrary is evidently the fact. Of an equal number of infants taken from among the poor and the easy classes, it will be found (at least it has been found in France, where the question has been the most agitated) that the proportion of deaths among the former is double :—and that wherever is the greatest portion of misery, there will also be found the largest share of mortality.

"The conservative tendency of an easy condition is strongly marked by the very inferior degree of mortality and of disease which occurs among persons insured at the various life-offices. The Equitable Office had always employed the corrected Northampton tables of the probabilities of life. But Mr. Morgan, the actuary, found in 1810 that the actual deaths which had occurred among 83,000 persons insured during 30 years was in the proportion of only 2 to 3 of what had been anticipated by the tables. And among these *selected* lives the mortality of the women is still less than that of the

men; because in the middle classes they enjoy a remarkable exemption from fatigue and difficulty. To illustrate the low rate of mortality among such picked lives, or among persons in the enjoyment of competence, it may be mentioned, that the annual average of deaths amongst the persons insured at the Equitable from 1800 to 1820 was only about 1 in 81½. Of 1000 members of the University Club, only 35 died in 3 years, which is a still lower rate, about 1 in 90 annually. Of 10,000 pupils who passed in different years through Pestalozzi's institution in Switzerland, it is even asserted that not one died during his residence there. These were youths chiefly, but of all countries, constitutions, and ages; generally, it is to be observed, of easy circumstances. Pestalozzi, also, paid particular attention to their bodily exercises." 209.

Dr. Hawkins concludes the work with a chapter on the application of medical statistics to the illustration of the principle of population.

After enumerating the many varieties in the distribution of mortality, Dr. H. shortly inquires into the causes which diminish it, and especially in this country.

"Among the general causes, the increase of commercial and agricultural industry has multiplied the comforts of the lower classes, and has enabled them to procure a more spacious dwelling, more frequent changes of clothing, and more abundant and more wholesome food; inasmuch, that the average mortality and health of every nation are mainly determined by the degree in which its government has encouraged these pursuits, or has checked their free course. So intimate a connection subsists between political changes and the public health, that wherever feudal distinctions have been abolished, wherever the artisan or the peasant have been released from arbitrary enactments, there also the life of the lower classes has acquired a new vigour; and it is certain, that even bodily strength and the power of enduring hardships are divided among the nations of the earth in a proportion relative to their prosperity and civilization.

"We may easily conceive the different constitution of body and of mind which is likely to grow upon the unemployed inhabitant of a decayed city, who gloomily wanders without an object through silent streets whose pavement is choked with grass; and upon the active citizen who feels himself a constituent member of a flourishing community, and who is attracted on all sides by invitations to the exercise of his faculties.

"It is indisputable, that the average proportion of deaths in England and her cities is less than that of any other country of Europe. And it may be added, that the powers of body and of mind are preserved to a late period in higher perfection here than in other countries: nowhere are the advances of age so slowly perceived, and nowhere so little manifested on the exterior. An analogous condition of health and vigour may be also observed in our animals and in our vegetation; and if it should be replied, that this excellence is owing to the care bestowed on their culture, the answer applies equally to the human being, on whom more attention is here bestowed, and who is really an object of greater value here than elsewhere." 233.

We cannot part with our talented and erudite author, without expressing our admiration of his industry, his good sense, and his amiable feeling, as evinced through every chapter of the work under review. We shall be much deceived, as well as disappointed, if other, and still more interesting productions, do not ultimately issue from the same source. *Perge pede quo cœpisti.*

Periscope ;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

I.

ON SOME FORMS OF CEREBRAL AND SPINAL IRRITATION. By Dr. DARWALL.

A paper on this interesting subject has just appeared in our Midland contemporary, from the pen of Dr. Darwall of Birmingham, which is deserving of notice. There can be no doubt that modern pathologists have contemplated the brain and nervous system as passive rather than active agents in disease, if not in health: that is, they consider that the circulation influences the brain much more than the brain influences the circulation. That there is a reciprocal influence exerted, cannot be questioned, but we have no doubt that infinitely more of our disorders and their consequences, diseases, arise through the instrumentality of the brain and nervous system than through disturbances of the circulation produced independently of this source. It should never, indeed, be forgotten that the animal functions, as well in health as in disease, operate in a circle—that the interruption may begin in any one part, and be thence communicated to many other parts, which re-act in their turn, on the primary source of disturbance.

After alluding to the discoveries of Bell and Philip, respecting the nervous system, and the influence of the nerves on secretion, Dr. D. thinks we may fairly conclude that, "when indigestion and its accompanying evils of nervous irritability, severely affect any individual, the brain and spinal chord, one or both, are suffering, as well as the stomach."

"But I wish to go further than this point, and to regard the nervous system not as merely influenced by affections of the kind above alluded to, but as actually being the

source from which they proceed. It is now much more generally acknowledged than formerly, that functional must precede organic diseases, and consequently, if the nervous system preside over and govern function, this same system must, in very many instances, be first affected. It becomes, then, necessary to ascertain these instances, for it is clear that our chance of curing disease, must be in proportion to the accuracy of our diagnosis in the earliest periods.

"The affections which appear to me referable to irritation of the spinal chord, are, perhaps, in their origin, confined to this portion of the nervous system only; but so intimately are the sympathies united, that but a very short time elapses before the brain is also comprehended in the disorder. Of the nature of the irritation, or what is the state of the blood-vessels of the part affected, dissection cannot afford us any information, inasmuch as patients rarely die from maladies of this kind, till the functional has passed into organic disease. But I am inclined to believe, that in most cases, there is some irregularity in the local circulation—that there is frequently congestion, and it may be conceived, that it will sometimes proceed into acute or chronic inflammation.

"One other circumstance may be referred to before entering upon the consideration of the affections in question; it is simply this, that disorders attacking the origin of nerves or their attachment to the central mass, whether this be the brain or the spinal chord, always disturb the functions of the organs to which such nerves are destined. It may be imagined that the ramification of nerves may be affected in their passage, and thus, also, give rise to similar phenomena; no

reason can be alleged that such a circumstance may not happen, but we know actually that the former does occur, and we may not neglect it in the treatment of diseases, and if by any means we could recognise the latter affections, they also would demand an equal attention. It is of the former, however, which I now propose to treat, and the first class are those in which the functions of the heart suffer.

"That mental anxiety has frequently given rise to organic disease in this viscus, is well ascertained, and the progress of such cases is generally the following. Depression of spirits, with dyspepsia, and occasional palpitation of the heart; considerable debility; great excitability; and every time that this is acted upon, it is followed by exhaustion, and more or less severe hypochondriacism. Emaciation occurs, and generally in proportion to the affection of the heart. After some time, the palpitation becomes more and continual; the action of the heart is perceptible over a larger space, sometimes on both sides of the chest; the pulse at the wrist is various, according to the nature of the cardiac affection; if the ventricles become thin and weak, the pulse is rapid, small, and feeble, undulating; if, on the other hand, active aneurism of the organ exist, the pulse is, in the earlier stages, excessively powerful, and sometimes continues so till within a few hours of death. In other cases, it resembles, for weeks before dissolution, the pulse which attends passive aneurism. Unless death occur suddenly, these affections terminate in general or local dropsy, and the patient dies completely worn out and exhausted.

"In women, the catamenia become very early deranged; they are profuse or suppressed, and in either case attended with severe and profuse leucorrhœa. The following cases appear to me illustrative of these observations. In the first, the disease was removed by early attention: in the second, it is most probable that irremediable organic alterations had taken place."

We shall briefly sketch out these cases.

a jeweller, aged 19 years, applied to our author, having been previously under a respectable surgeon for dyspepsia. He had suffered from moral causes, and was obliged to work fourteen or fifteen hours daily to support his wife and himself. His appetite failed—he became flatulent—had palpitation of the heart, which gradually increased till he could no longer move without exciting violent action of the organ. By attention to the digestive organs the appetite improved, but the palpitation continued. A blister was applied to the upper part of the dorsal vertebrae, which greatly diminished the palpitation. In a week another blister was applied, and soon afterwards the palpitation ceased. Afterwards he appeared to continue well. The only addition to the previous treatment was the application of the blister to the spine.

"The grounds upon which this treatment was instituted, were these. The disease had evidently originated from mental disturbance, acting through the nervous system, and appeared to have affected more particularly that part of it which presides over the functions of the heart. This organ is supplied with nerves partly from the *par vagum*, which takes its rise from the *medulla spinalis* and partly from the cardiac plexus, of the sympathetic, which receives twigs from the spinal nerves. My object, therefore, was to apply counter-irritation, as near the common centre of cardiac nerves, as lay in my power. Whatever may be thought of the reasoning, the success of the treatment was undoubted: nor, I think, can it be doubted, that it was one of those affections which so frequently terminate in organic diseases of the heart."

We are rather surprised to find the *par vagum* taking rise from the *medulla spinalis*, as we generally have seen it rise from the *corpora olivaria* of the *medulla oblongata*. Dr. D. no doubt, considers this part as only the highest point of the *medulla spinalis*.

The second case is still under our author's care, and is, he fears, irremediable.

Case 1. Jan. 10th, 1828. A young man,

Case 2. Dec. 31st, 1828. A young woman

aged 19, has severe and constant palpitation of the heart, with small, quick, fluttering, irregular pulse. The ventricular contractions can be heard in every part of the chest, and the palpitation is increased after taking food, or the slightest exercise. She is flatulent, costive, urine turbid and scanty, catamenia regular but dark-coloured—*profuse leucorrhœa*—*dyspnoea*, but no cough—heaviness and giddiness of head, with noise in the ears—“*pain in the nape of the neck, increased, and particularly distressing, on the slightest agitation.*”—She describes it more as stiffness and irritation than violent pain—very low spirited. She has been ill for seven years, and her complaints began soon after the impression of triste moral emotions, and the drain of a profuse leucorrhœa. Afterwards the palpitation increased, and it was much aggravated by a fright, after which she was incapable of doing any thing. She still remains with the same state of heart and pulse. The third case we shall give in Dr. D's own words.

CASE 3. “*Nov. 1828. I visited Mrs. Wilson, and found her labouring under the most violent palpitation of the heart I had ever seen. The bed clothes were heaved up with each contraction of the ventricle and the pulse in the carotids was tremendous. On applying the stethoscope to the region of the heart, a very loud hissing noise was distinctly heard, at intervals, corresponding with the pulse at the wrist. The palpitation came on more violently at one time than at another, but had continued at the time of my visit, almost without intermission, for nearly a fortnight. She was very low spirited, and hysterical, but without fever. Her bowels had been purged and leeches had been applied to the region of the heart, but without benefit.—She was again purged, and a blister applied to the spine, which rose in about eight hours, and the palpitation had diminished as soon as the irritation from the blister was perceptible. I saw her the next day, and the palpitation was almost gone. The hissing sound had quite disappeared. It returned slightly a day or two after, but has never again been so violent. Gentle aperients, with the mineral tonics, were*

given, and in a few days she was able to go to work. She has had many of these attacks within the last few years.

“*December 6th, 1828.—I have seen her this morning, and she is entirely free from inordinate action of the heart. Her pulse was eighty-four and quiet. She refers her relief to the blister.*”

In the second case, the leucorrhœa, we imagine, tends very much to keep up the inordinate action of the heart. All drains upon the system, especially that of blood from piles, and profuse mucopurulent secretions from the vagina, have a very powerful effect in disturbing the action of the heart, and imitating organic disease there. In the third case we have also to recollect that the patient was an hysterical female, and we all know what fearful forms hysteria will assume, and how obstinate they will prove at one time, and fugitive at another. Dr. D. observes that there was one symptom in the second case which scarcely leaves a doubt of the medulla spinalis being implicated, viz. “*the pain in the nape of the neck.*” If Dr. Darwall will carefully inquire among his dyspeptic patients, he will find this symptom present in three cases out of four, though it will not always be told to the doctor unless he makes inquiries. Of all sympathetic pains we have found this the most common in dyspepsia, and we really cannot bring ourselves to believe that it depends on an affection of spinal marrow. It is true that, being a sympathetic pain it must be produced through the medium of the brain or spinal marrow; but we do not suppose it is what Dr. D. means by spinal or cerebral irritation.

“*Another form in which spinal and cerebral irritation are exhibited, occurs most frequently in young women. It is attended by severe and constant pain in one or both hypochondria, extending to the shoulder and arm of the affected side, not always aggravated by pressure, and ceasing immediately upon or in a short time after lying down. It is this pain of which the patients general-*

ly complain, and it frequently endures for several years. It is generally attended with much constitutional disturbance. *There is head-ach, with great heat on the external surface of the head, severe throbbing of the temples, and pain in the nape of the neck. The temper is capricious, and the spirits very variable* : and at the catamenial periods, the depression, in many cases, is excessive. The tongue after some time, is furred, and at the back part, greatly tuberculated. The stomach suffers under the various forms of dyspepsia, gastrodynia, flatulence, pyrosis, &c. the bowels are, in many instances, much distended, and there is continual clangor intestinorum. Palpitation of the heart, more or less, is present, and often dyspnœa attends. The most common disturbance, however, is in the uterine function, and I have scarcely seen an instance in which this has not occurred. Most commonly there is menorrhagia ; in some few cases the catamenia are diminished, or they are completely suppressed. But whether they are increased or diminished, leucorrhœa almost invariably attends, and is generally more or less profuse, in proportion to the duration of the general disorder. When the catamenia are profuse, they are usually in the earlier part of the period, dark coloured and grumous, and are accompanied with severe pain. The urine, for the most part, deposits a light coloured sediment, and varies much in quantity, being occasionally very copious and limpid. The bowels are constipated, and yet no great relief is obtained by purging.

" If this state be suffered to proceed without remedy, emaciation ensues, and great debility, till at length the individual is incapable of following any occupation. Her countenance becomes leucophlegmatic ; her ankles swell at night, and without being so ill as to be considered in danger, she settles down into that morbid condition to which the term cachexia has been applied, when every organ suffers in some degree, but none predominates. When this happens, it is generally too late to afford any relief. I have had a young woman under my care for some time, under the last mentioned circumstances. She has continual pains referred to one part or another, but most frequently fixed to a spot under the left breast ; she is leucophlegmatic ; her ankles are at

times œdematous ; her breathing short and hurried ; her spirits very varying, and she is subject to much head-ach and giddiness. At different times she has received relief from local depletion, and upon the whole she is better than when I first saw her ; but there seems no prospect of affording her any permanent benefit."

Dr. D. mentions the case of a married woman, who had suffered for more than a year, from severe pain in the course of the descending colon. " It was attended with much hysteria." Her medical attendants had purged and leeches their patient, without any good effect—and blisters had been applied to the seat of pain. Dr. D. applied a blister to the lower dorsal and upper lumbar vertebræ. " The next day the pain had nearly disappeared." A second blister completely removed the pain. Her general health was then restored by tonics, gentle aperients, and attention to diet.

" A second class of cases, are those in which the brain appears to suffer considerably, and where, though the catamenia are diminished, or almost suspended, the countenance is pale and leucophlegmatic ; the pulse weak ; the breath hurried ; and the pain in the side varying. Cases of this kind frequently require more active treatment, and in the first instance even admit of general depletion, though this cannot be carried far ; indeed, the immediate effect of bleeding in such circumstances, is often an increase of the weakness, and but a very slight relief of the other symptoms. Remedies, nevertheless appear afterwards to be more efficient, and it has seemed to me that patients who have suffered depletion, recovered much more quickly than those who were not bled.

" A young woman, two and twenty years of age, had suffered from considerable depression of spirits for several months, when to this, *pain in the side, stiffness in the back of*

the neck, palpitation of the heart, and dyspnoea, succeeded. There was some leucorrhœa; the catamenia were irregular in their occurrence, and less in quantity; the pulse was feeble; the countenance sallow and anxious. About a fortnight before she applied to me, the left ankle had become painful and œdematous, particularly towards the evening. She had also intense head-ach. She was bled and purged, and for some days remained very feeble; the head was less painful, but was still hot on the surface, and she suffered much from tinnitus aurium; the pain in the side remained the same. Cold applications were made to the head, and a blister placed along the spine, from the nape of the neck to the middle of the back. The next day all her symptoms were relieved; she continued the cold application for a few days, whenever the scalp was warmer than usual, till the tinnitus aurium completely disappeared. After this time, aperients, with the nitro-muriatic acid, were given, and her health improved rapidly. Her appearance now, not more than two months from her being bled, is that of florid health."

The difficulty of breathing, Dr. D. observes, is sometimes so great, as (when the cough is also considered) to induce the fear of organic disease of the lungs. "The stethoscope, in these cases, is a great assistant in the diagnosis. The respiratory murmur is heard in every part of the chest, and is even puerile." This heightening of the respiratory murmur is Dr. D. thinks characteristic of the complaint.

"Another variety of this complaint is, where pain in the nape of the neck is complained of, with a sense of pricking and chilliness along the spine. This is most severe at the catamenial period, which, in these cases, is very irregular, and attended with much pain and depression of spirits. Numbness of one or both upper extremities, is sometimes felt, and I have even known complete, though temporary, paralysis occur, which disappeared spontaneously in a few hours.

"To enumerate all the varieties of these affections would be endless; in all of them

there is depression of spirits; in almost all, there is pain and stiffness at the back of the neck, and the nervous sensations are peculiarly distressing. In some, in addition to the symptoms above mentioned, there are slight spasmodic twitches occurring in different parts of the body, and pointing out more decidedly the nervous origin of this disorder."

The last case which our author mentions was that of a female cook, aged 30 years, who had laboured under what was considered to be common dyspepsia both by himself and others. She afterwards became very hysterical—"once or twice had a paralytic loss of power in one arm, and frequently complained of a numbed state of the tongue and a sense of fulness in the throat, which disappeared without medical assistance.

"Leeches were applied, but her complaints were aggravated. Her pulse was weak, from 80 to 90; the catamenia scanty; leucorrhœa profuse; her whole appearance leucophlegmatic. To this state frequent attacks of giddiness succeeded, with great depression of spirits, and at length, an attack resembling epilepsy. The common run of alteratives, aperients, &c. were tried in vain. She was taken into the hospital, but came out without any improvement. At this period a seton was placed in her neck, and for some time her health materially improved; her stomach recovered its power, and all her uncomfortable sensations diminished. They have since re-appeared, and her state has been exceedingly variable: there seems now no prospect of a recovery. Since the cerebral symptoms have been more developed, general bleeding has given her temporary relief, but only temporary."

Dr. D. considers the foregoing cases, and cases analogous, as of the same nature as those which Dr. Marshall Hall has denominated disorders of the general health.

"If, however, they are accurately investigated, it can, I think, be scarcely doubted, that the nervous system suffers in all these examples, primarily and seriously. The intellect is unclouded, but incapable of energetic ac-

tion; the temper is exceedingly capricious, and the spirits are lowered or elevated far beyond what the circumstances which produce such effects, could lead us to expect; at times, indeed, the mental affections amount almost to insanity; kindness is overlooked or perversely misinterpreted; suspicions are entertained, the most unfounded and the most irrational; the bitterest expressions are employed, without any settled belief, that those deserve them against whom they are directed; and, in short, every thing indicates that state which has most appropriately been called highly nervous. Is it possible that all these things can occur, without affection of the cerebral and spinal system?

"Again, there are local pains, neither exhibiting the symptoms, nor yielding to the remedies of inflammation, but ceasing upon assuming the reclined posture. Knowing, as we do, that the same circumstances occur when pain is experienced in the back from affection of the spine, is it not fair, in defect of other explanations, to refer them also to disturbance of the nervous system? Again, these pains are distant from the spinal chord, but if Sir H. Hallford's hypothesis be correct, of one source at least of Neuralgia, viz. irritation of the nerve within the skull, this will serve rather to corroborate the opinion."

Dr. D. has made some judicious observations on the moral treatment of this class of complaints, which deserve attention. The paper indeed contains, as our readers will perceive, many ingenious remarks, and important practical inferences. If counter-irritation to the spine be found as efficacious in dyspepsia, by others as by the author, he will have conferred a great benefit on society.

The next article in the same journal is a case bearing directly on the subject under investigation:—namely, one of severe dyspnoea, succeeded by epilepsy, and cured by counter-irritation of the occiput and back

of the neck, by Mr. Romney of Worcester. The patient was a prisoner in the county-gaol, under sentence of transportation, and was brought from the tread-wheel to the hospital of the prison, on the 23d of March last, with very hurried and feeble respiration, small quick pulse, and great depression of spirits. The countenance was pale, tongue clean, bowels rather confined. No pain, cough, nor mucous rattle on inspiration. The breathing was from 100 to 120 in the minute. Pressure on every part of the abdomen was borne without pain. He was put to bed, and a dose of calomel, with a saline purgative draught given. He passed a sleepless night. The bowels acted freely; but there was no amendment of the symptoms in the morning. Some blood was taken from the arm, and faintness ensued. He passed another sleepless night, from the hurried respiration.

"March 27th.—On repeating the bleeding this morning, although he had no dread of the operation, he suddenly became extremely faint, and respiration being suspended, apparently from spasm of the diaphragm, he had nearly expired. Camphor and opium were now had recourse to in considerable doses, but with no good effect. A dozen leeches were applied to the epigastrium, which bled freely, and he got a warm bath of the temperature of 90 degrees. He then appeared relieved for a few hours, but the hurried breathing returning, the leeches were repeated, followed by the warm bath, and a large blister to the epigastric region; and his bowels, which were confined, were relieved by castor oil. In spite of these and similar remedies, the hurried bleeding, sleepless nights, and mental despondency, continued with very few and short intermissions till the 26th of April, on which day his respiration suddenly became more hurried than ever, and this distressing affection continued unabated for several days and nights, depriving him almost of the power of speaking, and totally of rest. This state was succeeded by the most violent Epileptic fits I ever witnessed, requiring, with only short intervals, four men to hold him for several days and nights. These fits left him very exhausted and weak, and the respiration remained unimproved. He was in this state when I requested Dr. Malden to visit him, who gave it as his opinion

that the peculiar *Dyspnœa* had, in all probability, depended upon irritation of the cervical portion of the spinal chord, and that the supervention of the epilepsy might be accounted for upon the supposition of this irritation extending to the base of the encephalon. With these views, he recommended the whole back part of his head to be shaved, and covered with a large blister, discharge to be encouraged from it, and before the blister healed, a seton to be put in the back of his neck. These directions were strictly followed. From this time he had no return of epilepsy; the *Dyspnœa* also gradually went, and he had no relapse, although he remained in the prison some months afterwards."

That the blistering contributed to the amelioration of the symptoms in the above case, we do not deny; but as it is quite evident that there was nothing inflammatory in the complaint from the beginning, we strongly suspect that a "cessation of hostilities"—namely, a hiatus in the depletive measures, was not the least operative part of the *methodus medendi*. The injurious effects of bleeding and purging in states of great mental depression are not sufficiently known; and we cannot but feel some surprise that, a pale countenance, small pulse, clean tongue, great depression of spirits, freedom from pain on abdominal pressure, and hurried feeble respiration, should not have induced Mr. Romney to pause in the repeated employment of leeches, venesection, and purgation, in such a case. The protraction of the symptoms, and the supervention of epilepsy, shewed abundance of irritation; but we believe that there was not a particle of inflammation in the case from beginning to end. God forbid that we should censure Mr. Romney for his practice in this instance. It was not until after we had often committed the same error, that we saw the necessity of caution. A careful and candid review of the case will probably induce Mr. Romney to think that the same course of proceeding would not be advisable under similar circumstances again.

II.

CARDITIS SIMULATING CHOREA.

The medical practitioner is not seldom puzzled by nervous affections taking on the characters of serious organic diseases:—he should be on his guard against the reverse—dangerous maladies concealed under the mask of nervous disorders. The following case is published in Hufeland's journal, by Dr. Roeser of Wurtemberg.

Case. A young girl, nine years of age, of delicate constitution, was seized with epistaxis, while at school, on the 25th November, 1827, and the blood continued to flow till syncope supervened. The hæmorrhage returned two days afterwards. She had never before experienced any illness. On the 1st December the mother applied to Dr. Roeser, on account of certain involuntary and convulsive movements which the child presented, especially about the head and in the limbs. These increased daily, and by the 7th of the same month, the girl could neither walk nor stand. The disease was now pronounced by Dr. R. to be chorea. The patient complained of pains in her head, in the region of the heart, and in her limbs. We need not detail the treatment. The poverty of the patient prevented much polypharmacy. We may remark, however, that, in addition to the usual choreal symptoms, there was complete insomnia—small and quick pulse—red sediment in the urine—yellow coat on the tongue. These adjuncts determined M. Roeser to adopt the purgative plan of Hamilton. It was, however, ineffectual, for in a very few days the patient died—not indeed before the doctor began to suspect that he had a disease to combat somewhat more formidable than St. Vitus's dance.

Dissection. There were marks of inflammation, and even considerable effusion in the head. But the chest presented the most remarkable lesions. The lungs were covered with gelatinous exudations, partly membraniform, though their substance was sound. The anterior mediastinum contain-

ed much of the same products of inflammation. The pericardium contained from four to five ounces of sero-sanguineous fluid—and it was connected by elongated bands of false membrane to the surface of the heart, which surface was completely coated with coagulable lymph, of several lines in thickness.

It need hardly be said that such a condition of the heart ought to have been recognized, to a greater or less extent, during life. But it seems that in Germany the value of auscultation is still less appreciated than in this country. Our Saxton brethren are too much taken up with the dreams and placid slumbers of animal magnetism, to be alive to the sober *revelations* of the senses, and the physical *signs* of the times. It may not be easy to imagine the kind of ecstasy experienced on awaking from such reveries to the sad realities presented by cases like the foregoing! We abhor that censorious spirit, now alas! too prevalent in the profession, which condemns, with uncharitable demeanour, every mistake of a neighbour; but we do think that it is incumbent on the medical practitioner to avail himself of every possible mean which may contribute to enlighten the dark and intricate paths he is obliged daily to tread.

III.

SUBCARBONATE OF IRON IN TETANUS.*

That zealous and highly talented physician, Dr. Elliotson, has followed up his experiments on the powers of the subcarbonate of iron, and applied it to the treatment of tetanus. Of the original paper published in the first part of the thirteenth volume of the *Medico-Chirurgical Transactions* we have given an ample account to our readers, and it now remains to notice its present suc-

cessor. The object of Dr. E. has been to prove that the subcarbonate might be given (in treacle) in much larger quantities than was previously imagined, and that even half-ounce doses were seldom productive of any inconvenience. The powers of the medicine in chorea were particularly pointed out, and reference was made to a case of traumatic tetanus, in which it appeared to effect a cure. The case in question is now detailed at length by Dr. Elliotson, so that the profession has an opportunity of judging for itself.

Case. Charles Frazier, middle-aged, received a compound dislocation of the great toe, December 10, 1825, and was carried to St. Thomas's Hospital. In the evening of the 24th, the lower jaw began to be stiff, and next morning the mouth could scarcely be opened sufficiently to allow the tongue to protrude. The bowels were ordered to be cleared by $\mathfrak{z}\text{ij}$. of the oil terebinth. and then $\mathfrak{z}\text{ss}$. of the subcarbonate of iron to be taken every two hours. The dose of oil was repeated by the apothecary in the evening with the effect of procuring six evacuations, and the man not being able to swallow the subcarbonate, musk was substituted for it. Next morning the mouth was more closed, and the pulse 136. By diffusing each dose of the electuary, composed of the subcarbonate, to twice its weight of treacle, in a cup of beef tea, it was swallowed with ease, and regularly taken. The patient took also lbs. ij . of strong beef-tea daily. On the 26th, the trismus was rather increased, deglutition difficult, the abdominal muscles growing hard, the countenance anxious, the pulse 136. Pain had been felt in epigastrio, and there had been two stools with tenesmus. Half a pint of wine daily was added to the beef-tea. Next day the trismus was improved, and a little pus was evacuated from the foot; on the 28th, more matter was let out, and, the bowels being bound, an injection of colocynth administered after two common clysters had failed. On the 29th, the bowels were opened, the improvement decided, and the allowance of strong beef-tea increased to lbs. iv . On the 30th, the dorsum of the foot was very much inflamed, and on the 31st, he opened his mouth so wide that nut-ton chops were allowed him at his own

* Med. Chir. Trans. Vol. XV. Part I.

request. The recovery from the tetanus was so complete, that on the 7th the patient ceased to be under the care of Dr. Elliotson, and subsequently left the hospital completely cured. As the tetanic symptoms subsided, it is well to remark that the local injury produced more inconvenience, so that on the 2d and 3d, the foot was so painful as to deprive the man of rest.

The result of this case, in which the subcarbonate was given on principle, and seemed to produce such good effect, was highly gratifying to Dr. E. and determined him to apply it to the next example of tetanus it should fall to his lot to treat. Such an opportunity did not occur till after an interval of nearly three years, but on the 6th of November, 1828, Bryan Macguire, a labourer, aged 44, was admitted into George's Ward, labouring under trismus and opisthotonos. The mouth could only be half-opened; the muscles of the abdomen and back rigid; the body much arched, and during the spasms the pain at the epigastrium dreadful; the expression that of extreme agony; the pulse 76, regular, soft, and full. The thumb was slightly swollen and tender, and the nail was evidently separating, but without any pus below it.

Exactly a fortnight previous to admission he had jammed the thumb between two pieces of logwood, and torn the skin at the root of the nail, under which a little matter subsequently formed and escaped at one side. The trismus had begun six days before admission, the opisthotonos only one.

The bowels not having been opened for four days, were cleared by ℥ij. of oil terebinth. and castor oil, after which the electuary of subcarbonate of iron diffused in strong beef-tea was exhibited every two hours, whilst lbs. iij. of beef-tea were also given daily. Seven stools were procured by the purge, but on the 7th the symptoms were rather increased, and the dose of the iron was augmented to ℥iij. and a common injection of gruel, salt,

and oil prescribed. Stools were again obtained, but no amelioration of the tetanic spasms, in consequence of which the dose was again raised on the 8th to ℥ss. of the subcarbonate, with a common injection. Next day the patient was still worse; a pint of milk and of porter were added to his diet, and the injection ordered to be administered twice a day. From the 9th to the 13th the patient continued in statu quo. Each injection coming away exactly in the same state in which it was administered, and being followed by several large dark red balls without pain, the dose of the medicine was diminished when the foregoing ceased to be the case. To ensure the facility of the discharge of these accumulations the injection was also ordered to be repeated three times a day. On the 13th the patient was somewhat better, and Dr. Elliotson discovered that above double the prescribed dose of the subcarbonate had been given. However, as it produced no inconvenience and the progress of the disease was evidently arrested, no alteration whatever was made. On the 14th, the improvement was decided, and from this time the medicine was not taken in the night. On the 17th, the opisthotonos was very slight, and the patient having suffered only four paroxysms in the previous forty-eight hours, the medicine was given only every four. On the 25th, he was so well that the medicine was discontinued in toto.

"I am ignorant," says Dr. E. "whether, if even the cure was effected by the remedy, a smaller quantity would not have been sufficient. I believe that in most cases of disease, doses of ℥i. or ℥ij. two or three times a day, answer every purpose. But knowing as I did, that indefinite quantities are generally borne without inconvenience, and that large doses sometimes succeed after small ones have failed, and having a terrible disease to treat, which renders the system callous to many agents, and requires the full force of remedies to subdue it, I did not feel justified in trying whether less would accomplish the end. Among the large number of cases of tetanus upon record, I have read one only in which iron was exhibited, and then, together with many other means, the sulphate was given in doses of five grains every two hours, to a negress

twelve years of age, for four days. She recovered."

"Should iron prove a remedy in tetanus, I am aware that some cases will be too rapid for its action to be exerted, and that in others the degree of trismus will prevent its sufficient exhibition.

"But I dare not assert that these two cases were cured by the medicine, and I never before published upon the powers of a remedy, till long and careful experience had satisfied me that my results would be confirmed by all those who employed the remedy in the *same manner*, and under the *same circumstances* of the *same diseases* in which I had employed it. Yet when the facts formerly mentioned, of my having originally employed iron in tetanus from analogy; of the usual fatality of the disease, and the inefficacy of ordinary measures; of the gradual decline of the symptoms, in both my cases, soon after the commencement of the treatment; and of the magnitude of the quantities taken, are considered; together with the fact that these two successful cases are the only ones treated by me either in this way or in the Hospital at all, and the probability of a length of time elapsing before I meet with the disease again, I trust I shall be pardoned for communicating them to the Society."

We think that Dr. Elliotson displayed a very commendable caution in urging the claims of the subcarbonate in the wary and philosophical way he has done.

* "Memoirs of the Medical Society of London. Vol. VI. 1805. p. 77 et seq. The case was written in 1796, and the author does not lay any stress upon the iron. Oxyde of zinc, bark, opium, brandy, oleum succinatum, the hot bath, a clyster of tartarized antimony, and incision of a cicatrized burn followed by the application of caustic, were all simultaneously employed. But three exacerbations of spasm occurred after the application of the caustic."

So also the event went to prove; for in February of the present year, a patient was admitted into the hospital under the Doctor's care, in whom the remedy unfortunately failed. This case, with honourable and manly candour, a candour which deserves the more praise because of its scarcity in the present remarkable æra of falsehood, was instantly communicated to the Society, in the form of a postscript to the preceding paper.

The patient was 15 years of age, and admitted on the 17th, with the most dreadful tetanus and opisthotonos. A chilblain had existed over the right tendo achillis for about a fortnight, and had broken on the 8th; the trismus had begun on the 14th, and the opisthotonos on the 16th. The treatment pursued in the former cases was also had recourse to here, but at 8, p. m. of the following day a horrible spasm took place, and the patient died. On dissection, the brain and spinal marrow were found to be perfectly healthy, the lungs were gorged with blood, and several white spots were seen in the lining membrane of the aorta.

Dr. Elliotson does not consider that the case affords an argument against the use of the subcarbonate in tetanus, "any more than the former cases prove the efficacy of the medicine." The remedy in question exerts no influence in less than two or three days, and in this instance its exhibition was not commenced before the afternoon of the fourth, whilst the patient died on the fifth. We agree with Dr. E. in thinking that the question is yet sub judice, and earnestly implore our professional brethren to give the iron a trial in the cases of this melancholy disease it may fall to their lot to treat. For our own part, we confess that our hopes of the ultimate value of the medicine are far from high, and we much fear that "acute tetanus" will continue to be, as it long has been, beyond the pale of medical art. Of the two successful cases related by the author, the first was clearly a mild case, such an one as frequently does well under various kinds of treatment. The second is a more satisfactory case, but how many circumstances step in to vitiate our conclusions in the practice of physic! We are all aware that numerous specifics have at different times

been proposed with confidence for the cure of this disease, but where are they now?—Buried with their authors in the tomb of the Capulets! By these remarks we would not wish to foreclose the question in the present instance, nor to shut the door against experiments with remedies. On the contrary, we again intreat practitioners to test the powers of the sub-carbonate of iron in the manner recommended by Dr. Elliotson.

IV.

SUCCESSFUL MODE OF TREATING FISTULA OF THE PAROTID DUCT. By M. Roux.*

A salivary fistula is neither a very pleasant nor tractable complaint, and any mode of treatment which shall prove more successful than those in common use, will undoubtedly be a boon to surgery and surgeons.—We have no intention of entering into prolix details respecting fistulae of the duct of the parotid gland, or duct of Steno, as it is usually termed; we would simply remark that it is rarely met with, and is one of the most obstinate of the salivary fistulae.—When it opens within the mouth, through the mucous membrane lining the cheek, it can scarcely be called a disease, as the fluid, in that case is discharged, though not by its original route, into its natural receptacle.—But when the opening is situate externally, and the saliva, instead of reaching the mouth, dribbles down the cheek, a train of inconveniences arise, which finally fall under the cognizance of the surgeon, and which it is his interest and business to remedy, if he can. The following case, which occurred in the private practice of M. Roux, will show that eminent operator's *methodus medendi*.

M. Auguste Godin, a notary at Neuvy, was loading a fowling-piece, when his powder-flask exploded, and one of the fragments

produced a wound in the right cheek. The wound was both deep and wide, and being in the situation of the parotid duct, great pains were taken to procure union by the first intention. Much inflammation, however, succeeded, and the above object was but partially accomplished; suppuration succeeded; and, along with the pus, saliva flowed in considerable quantity. It was now quite obvious that a salivary fistula was established. Cauterization of the edges of the ulcer, and afterwards compression were employed, but they failed in effecting a cure, and, two months after the accident, M. Godin repaired to Paris and consulted M. Roux. The fistulous opening evidently communicated with the duct of Steno, and not with the substance of the parotid gland. On introducing an Anel's probe through the natural orifice of the duct, on the inside of the cheek, it was stopped after a course of about half an inch, by what appeared to be an obliteration of the canal, and the same thing took place on attempting to pass the probe from the fistulous opening without.

Finding that the cavity of the duct was obliterated between the fistula and the orifice in the mouth, M. Roux was convinced that neither the caustic, nor compression, nor any other similar proceeding could avail, unless a route into the mouth were made for the saliva. M. Roux accordingly proceeded to an operation for that purpose, and first of all exposed the bottom of the fistula, by excising a portion of diseased skin which surrounded the external opening.—The next step consisted in making two successive perforations of the cheek, from without inwards, by a hydrocele trocar, taking care to avoid the gum. The openings were made on a horizontal line, and a quarter of an inch distant from each other; the one corresponded directly with the bottom of the fistula, exactly opposite the external opening—the other was nearer the parotid gland, and close to the anterior border of the masseter muscle. A small seton, composed of silk threads, was then passed through both openings, and the ends tied loosely in a knot, and retained on the outside of the cheek.

* Journal Hebdomadaire. No. 18.

A good deal of swelling and inflammation of the cheek succeeded, but were quickly subdued by local applications. A superficial abscess, however, formed close to the parotid gland, and communicated with the wound which had been made in the operation. It was freely opened, and the skin, or rather the old cicatrix over it was removed, so that the two wounds were laid into one. The saliva continued for some time to flow, in part externally, and in part by the openings into the mouth. Light dressings and gentle compression were employed, and the seton-threads were frequently moved backwards and forwards, in order to render the perforations completely fistulous. At one time strong compression was made on the external wound, but it brought on a return of inflammation, which extended to the parotid gland itself; it was, therefore abandoned. Six weeks after the performance of the operation, the saliva all at once ceased to flow from the wound, which rapidly cicatrized, and soon afterwards the silk thread came away spontaneously. Mr. G. stopped some time longer in Paris, and the cicatrix which ensued proved to be smooth, regular, and unaccompanied with any appreciable deformity. On the internal membrane of the cheek a transverse sulcus, with slightly elevated margins, could be felt, from which the saliva flowed into the mouth.

We have thought it right to publish the heads of the case, because they display the practice of M. Roux in this troublesome disease. That it ultimately succeeded there cannot be a doubt, but that some other method would not have done as well, perhaps there may. We do not clearly perceive the necessity for establishing two perforations in the mucous membrane of the cheek; indeed we are convinced that one, of sufficiently ample dimensions, would be simpler and better. The seton-thread passed through the two openings, and, including a portion of intervening soft parts, must frequently cut through that portion by ulceration, and lay the openings into one at last; or, at all events, if even they remain distinct, the two can answer no useful purpose, that would not be equally or better answered by a single one. This however is a trifle, and does not affect the principle of the opera-

tion, viz. the establishment of an artificial route for the saliva into the mouth. If this be the indication, as it certainly is, it must matter little how the minor steps of the operation that fulfils it are conducted.

V.

ANEURISM BY ANASTOMOSIS CURED BY THE APPLICATION OF LIGATURES. By E. C. BRODIE, F.R.S. Surgeon to the King, &c.

In the fifteenth volume of the *Medico-Chirurgical Transactions*, very recently published, is a short account of a case of the above description by Mr. Brodie. As it illustrates what we believe to be an important point of surgery, we hasten to give an authentic statement of the facts, although we have alluded to the case before in an article on pulsating tumours of the scalp.

Miss —, in the year 1809, being then five years of age, struck her forehead very severely against the corner of the bed-post. Shortly afterwards a small pulsating tumour the size of a pea, was observed at the stricken part, which produced little inconvenience, and acquired but little augmentation of size till 1821, when the young lady consulted a surgeon in London, who attempted the cure by pressure with compresses and bandage. Constant and severe pain were the consequences of the treatment, which, so far from proving of service, appeared to accelerate the growth and increase the pulsation of the tumour. From this time, also, there were frequent attacks of intense head-ach, which could only be relieved by blood-letting. The local treatment was now intermittent till 1824, when the size of the tumour again augmenting, another attempt at pressure was made by Sir Astley Cooper, with no better success than the former. In the latter part of June, 1826, the disease having made

still further progress, Sir Astley was again consulted, and applied a ligature, at four different times, round each of four principal arteries by which the tumor was supplied. A slight diminution in its size ensued; but the favourable change was of short duration, for, in the Winter of 1827, both the bulk and the painful sensations were greater, whilst a constant sense of weight over the eyes was experienced, and much dejection of spirits. Occasionally there were paroxysms of pain still more violent than usual, which were followed by a state of extreme languor and exhaustion.

"Miss — remained precisely in this state, except that the tumor continued slowly to enlarge, until the 9th of October, 1828, when she arrived in London, after an absence of many months, and I saw her, in consultation with Dr. Robertson, of Northampton. The tumor was now bigger than a large double walnut, occupying a spot on the right side of the forehead, immediately below the margin of the hairy scalp. When the fingers were applied to it, they received an impression as if it was composed of a mass of tortuous vessels, and a strong pulsation was perceptible in every part of it. The skin covering the tumour was thin, and on some occasions, as in coughing, when the vessels were unusually distended, it appeared as if on the point of bursting. When the scalp was shaved, large and tortuous arteries were to be seen, even from a considerable distance, passing into the basis of the tumor, in every direction, from each temple, from the orbit of the right eye, and over the crown of the head from the occiput. Pressure being made on the two temporal arteries at the same instant, the pulsation of the tumour was perceptibly, but not greatly diminished. There was a constant sense of weight and pain in the forehead, and the latter was very much aggravated by pressure on the tumor, especially on a particular spot towards its upper edge.

"The sufferings of the patient were such that she was willing to submit to any plan of treatment which might afford her even a chance of being relieved. On con-

sidering the subject, it appeared to Dr. Robertson and myself that there was no reason to expect advantage from any further attempt to obliterate the arteries by which the tumour was supplied with blood, nor indeed from any operation which had not for its object the complete extirpation and removal of the diseased structure. But the attempt to accomplish this object by means of the knife, would necessarily be made at the risk of a most alarming hæmorrhage, and the application of the actual cautery or of caustic would not only be uncertain as to the result, but, if carried to a sufficient extent completely to answer the intended purpose, might occasion such injury to the bone and periosteum, as would be productive of much subsequent inconvenience, if not actual danger, to the patient. Under these circumstances, Dr. Robertson immediately assented to the proposal which I made, that I should endeavour to extirpate the tumour by means of ligatures, so applied as to produce the complete strangulation of it at its base. There seemed at any rate to be no more effectual, nor any safer method of proceeding, but even with respect to this, it was impossible not to experience in the first instance considerable apprehensions as to the loss of blood, which might take place on the separation of the slough. These apprehensions were however greatly diminished, if not altogether removed, in consequence of the conviction which we felt, that the unusual dilatation of the principal arteries of the scalp, was to be regarded as the effect, and not the cause, of the morbid growth of the smaller vessels, and as being likely to subside immediately on the tumor being destroyed."

After a further consultation with Mr. Keate, Sir Astley Cooper and Dr. Robertson, Mr. Brodie performed the operation on the 15th of October.

"A long steel needle, the length of which was about double the diameter of the tumor, was passed between it and the periosteum, penetrating the skin on each side. By means of this needle the tumor was raised as much as possible, and a second needle was introduced in the same manner,

but beneath, and at right angles to the first. A very strong silk ligature was then bound several times round the base of the tumor below the needles, as tight as it could be drawn. The tumour immediately assumed a purple colour, as if in a state of strangulation. The operation occasioned great pain both at the time and afterwards; but from the instant of the ligature having been applied, the peculiar sufferings occasioned by the disease were at an end."

In the evening the patient required bleeding, but, on the 18th, all the arteries entering the tumour had either ceased to pulsate, or did so feebly, with the exception of those at the upper part. Concluding that the strangulation was not every where complete, Mr Brodie armed one of the needles with a strong double ligature, then drew it through, and, having removed the needle, tied the ligatures one on each side. On the 20th, the same thing was done with the other needle, and, on the 26th, the included tumour sloughed away altogether, without a drop of hæmorrhage. The ulcer soon put on a healthy aspect, and the nitric acid removed some spots upon its surface, that appeared to evince a disposition to re-produce the original mass. By the 2nd of December the cicatrix was completely formed, and no remains of the tumour existed. The arteries, which previously were so much enlarged, now pulsated with no more force than those on the opposite side, and the patient was free from all inconvenience.

We consider the preceding case as particularly interesting in a surgical point of view, and it goes to prove the correctness of a principle on which we have often and strenuously dwelt. We allude to the error of viewing these cases of pulsating tumour as analogous to aneurism, and, therefore to be treated like that disease. Suppose that in this, as in two other cases that have happened within these few years, the carotid artery had been tied! Would it not have been a cruel and unjustifiable operation, an operation which, if it failed to kill, would almost certainly fail to cure? We think there can be but one answer to the question, and, more than that, we venture to predict that a better æra has dawned upon this part of surgical science, and

that none, in future, will dream of resorting to any such attempts. We are not without our share of satisfaction, at finding that the views which we have all along maintained are proving to be correct, and that our published sentiments respecting the nature and treatment of this disease do not differ from those which are beginning to be entertained by the best informed members of the profession.

VI.

ULCERATION OF THE LEFT AURICLE OF THE HEART.

Rupture of the heart, though sufficiently rare, has yet occurred so frequently as not to be a subject of much surprise on the parts of those who are best conversant with morbid anatomy. It may follow the formation of a false aneurismal sac, or it may occur, as Dr. Baillie has described, from the thinning of a part of the organ in persons advanced in life, or even the healthy heart may burst from violent emotions of the mind or exertions of the body. Dr. Whytt in 1788, and Dr. Farr more lately, in his *Journal of Morbid Anatomy*, have related a case in which this lesion of the organ of the circulation took place from excessive grief, and proved that "to die of a broken heart" is not a fond fiction of the fabulist or dream of the imagination, but a strictly verified pathological fact. The case that we purpose to notice, however, is not, as far as we are aware, by any means a common one, for the heart had not simply given way, but an ulcer was found in the wall of the left auricle. No notice is taken of such an occurrence in Baillie's work, nor do we remember at this moment to have read of it elsewhere. The case is recorded by M. Maréjouis in the number of the *Révue Médicale* for March of the present year, from which we extract the particulars.

Pierre Lemousi de Tëndols, an old soldier, but then a servant, and leading

a regular life, had complained for some days of pain in the left side, accompanied with cough and dyspnœa. On the second day of his illness he kept his bed, but feeling himself better on the third he rose early, and after taking breakfast, set out to walk about a league. He arrived at his journey's end completely exhausted, and the bye-standers who remarked his condition, suddenly observed him fall from his seat. They ran to his assistance, but the only sign of life he gave was a vain attempt to swallow some brandy which was offered him, when he died as instantaneously as if he had been struck by lightning. The author of the case was informed of the event, and obtained permission to open the body, which he did next day, December 31st, in the presence of M. Valantin. Previously to this he ascertained that Tendols had been ailing for fifteen or sixteen months, being oppressed by the shortest walk, and fatigued by the least exertion.

Sectio Cadaveris. The face was much contracted; the body extremely muscular; in the right groin was the cicatrix of an old bubo. The left pleural cavity was so filled with yellow serum that the lung was quite flattened against the vertebral column. There was no injection of the pleura, no flakes of lymph, nor any false membrane in its cavity, and the lung itself was healthy and crepitating, though fuller of blood than usual.

The pericardium, which was much distended, was opened on its anterior part when a quantity of reddish serum escaped and disclosed an immense coagulum of blood covering the entire surface of the heart. Its weight at a rough guess was estimated at two pounds. The clot having been removed, and the pericardium cleared of the blood it contained, the heart was found to be enlarged, about half as big again as the patient's fist; softer than it should be; and the parietes of its ventricles, especially the left, flabby, and extremely weak. At its upper and posterior part was a small and

elongated clot, leading into the left auricle, by a rounded opening sufficiently free to allow of the introduction of the little finger. The auricle was laid open and its contents removed, when the perforation was carefully examined. It was situated at the posterior part of the auricle, a little to the left of the entrance of the right pulmonary vein; it is described to have been an "ulceration;" the lining auricular membrane was white and shining, except immediately around the ulcer, where its colour was violet red; the walls of the auricle were lacerable at this part, and evidently softened; and the appendix presented the appearance of ecchymosis. The valves were sound—the pulmonary and aortic vessels were free from morbid change, and presented no redness of their lining membrane. The stomach was filled with half digested food, and its mucous membrane was much injected. No other appearance worthy of note is described by the author of the case, but the head was not examined.

M. Maréjouis has appended no remarks to this statement, and as the case can only be of value in a pathological point of view we do not imagine that any were necessary. The history of the patient's ailments is far too meagre to allow us to pin upon it any thing like a ratio symptomatum.

VII.

ON THE EFFECTS OF RECENTLY FORMED BILIARY CALCULI. By M. BRICHETEAU, M. D. PROPOSAL OF ICE TO THE EPI-GASTRIUM.

Every practitioner of experience, knows the dreadful sufferings occasioned by gall-stones—more especially during the first attacks of this complaint, and before the biliary ducts have become accustomed to the passage of calculi along their internal surfaces. The author of the paper before us, who is a

distinguished pathologist, as well as physician, believes he can offer to the public "un moyen plus efficace qu'aucune autre de calmer promptement des accès insupportables qu'éprouvent les malades." A remarkable case, which we here subjoin, was the origin of this communication.

Case 1. Madame M—, aged 26 years, had been exposed, since the age of eighteen, to the greatest mental anxiety, in consequence of an ill-judged marriage. In the last seven years she had had four severe attacks of vomiting, the last of which forms the subject of the present case. For a day or two preceding the former attacks the patient experienced acute pains in the back and epigastrium, to which succeeded painful vomiting of yellow and green bile. These pains and vomitings continued for two or three days, after which she completely recovered her usual health. No fever accompanied these attacks. On the 15th July, after the usual premonitory sensations, the attack of bilious vomiting came on, and after lasting the usual time, left a state of indigestion and pains in the epigastrium, which had not been the case after former visitations of the complaint. On the 8th day another bilious vomiting came on, and in the night of that day, she had a rigor, with sharp pain in the right hypochondrium. On the succeeding day the eyes and skin were jaundiced—the pulse was quickened—the head ached, &c. Some laudanum was given, which mitigated the pain, but the jaundice became more intense, and no doubt remained that biliary calculi were the cause. On the fourth day of the jaundice a profuse perspiration broke out, and the yellow colour almost entirely disappeared. The urine, however, was much loaded. The pain of side ceased. On the 5th of August, she had another attack of pain in the epigastrium, and vomiting of green bile. On the sixth these symptoms were very distressing, and no ease could be obtained. Eighteen leeches were applied to the anus—and a few drops of laudanum were administered. On the 7th there was a mitigation, and the accession gradually disappeared. But there remained pains in the epigastrium, hypochondrium, and right shoulder. In a few weeks another violent accession of pain and vomiting came on,

which was relieved by leeching the right side and the epigastrium. On the 3d of December, fresh paroxysm, more severe than any that preceded, threatened this afflicted patient's life. General icterus followed, as on most of the other attacks, and the fit ended—but only to be renewed in the course of a few days. The pains in the epigastrium and in the back were most excruciating on these occasions. *In the course of January, the attacks began to assume a regular periodicity, returning once a week, and lasting one day each time.* Finding that bleeding, anodynes, and other measures were unattended by any success, M. Bricheteau had recourse to purgatives of salts and senna. The first produced violent pains in the bowels, succeeded by a discharge of numerous small biliary calculi, after which she had no more paroxysms, and her general health became re-established. Nearly two years afterwards this lady experienced another attack of this terrible malady. But M. Bricheteau now determined to try a new remedy—and that was the application of ice to the right hypochondrium. The fit was speedily terminated. Four months after this, a similar accession of the disease returned—and again the application of ice put a speedy end to the paroxysm.

Case 2. Madame R—, aged 45 years, had for several years been subject to attacks of severe pain in the epigastrium, obliging her to bend herself nearly double, and make great pressure at the pit of the stomach. These attacks lasted several hours, and were renewed every two or three months. M. Bricheteau was consulted, and tried several remedies, without success. He then ordered a bladder filled with pounded ice to the hypochondrium in one of these attacks. The application itself produced considerable suffering; but by the time the ice in the bladder was dissolved, and the temperature of the water brought to that of the skin, the lady was agreeably surprised to find that the internal pain, by which she had been harassed for 36 hours, was entirely gone. In some subsequent attacks, the same remedy was found equally efficacious. M. Bricheteau assures us that the attacks of this lady were really those of biliary calculi—or at all events, of biliary obstruction. Of this

we are by no means convinced. Be this as it may, let us proceed to the third case.

Case 3. A young lady, 26 years of age, had complained for a long time of various pains, which came on periodically, and generally in the epigastric region. The complaint was considered by some as hysteria—by others as biliary calculi. During the attacks she experienced the most excruciating pains in the right hypochondrium, where the slightest pressure could not be endured. Pain was also experienced in the right shoulder, and the knees were kept drawn up to the belly during the paroxysms. Amenorrhœa and great emaciation were added. These paroxysms generally lasted twelve or fifteen hours. In one instance it lasted three days, and the patient nearly lost her life. At last she passed a great number of small biliary calculi, not larger than the heads of pins, after which she rapidly recovered.

REMARKS. M. Bricheateau assures us that, since the occurrence of the first case which we have quoted, many others have occurred, in which the application of ice to the epigastrium has put a quick termination to the pain and spasms, and thus greatly curtailed the duration of the attack. We have had some experience in these painful complaints, and we are well aware of the difficulty of even relieving them, after the paroxysm has once commenced.

We believe that, in many of these cases, gall-stones are suspected when they do not exist. Thus in case 2 of this paper there is no positive evidence of gall-stones. There is no mention of jaundice—the most unequivocal symptom of gall-stones. We do not deny indeed that biliary calculi in the cystic duct, may produce all the phenomena, except jaundice, while the calculi are only thus far advanced. But, if they once get into the ductus communis, jaundice is almost inevitable. We have strong reason, however, to believe—indeed to know, that spasmodic affections of the stomach itself—of the diaphragm—and perhaps of other contiguous parts where muscular fibres enter

into the organic structure, are capable of inducing all the phenomena usually seen in the attacks under consideration, excepting jaundice. Nay, we are inclined to think that the yellow tinge of the eyes and skin may be produced by these spasmodic affections, quite independently of biliary calculi. The more important part of the treatment is the prevention—for during the paroxysms we can do little more than exhibit anodynes. The application of ice is a novel item in the *methodus medendi*, and of this we have no experience. The prevention may almost always be effected by plain and abstemious diet—by regular exercise, and by bitter aperients that merely act once in the 24 hours. By these means we have, in numerous cases, removed the tendency to these periodical attacks, after the habit had been long established, and the general health very much deteriorated.

VIII.

FRACTURE OF BONES FROM TRIFLING VIOLENCE IN CASES OF CANCER.*

Mr. Salter, a surgeon, of Poole, Dorset, has published two cases of fracture of the thigh that occurred almost spontaneously in patients affected with cancer of the breast. We shall only notice the second case, as in that, examination of the limb, post mortem, was permitted.

Mrs. Pringle, in October, 1823, had the left breast removed in Guy's Hospital, by Sir Astley Cooper, for scirrhus tumour, but in January, 1824, the disease returned in the cicatrix. In the succeeding July, whilst raising the right thigh in the attempt to get into a cart, the thigh-bone broke about three inches below the trochanter major with an audible snap, and on the 19th of October the patient died. She was 56 years of age, and had long complained of slight rheumatic pains in the affected limb, which, for about

* Med. Chir. Trans. Vol. XV. Part. I.

five months prior to the accident, had been converted into violent pain extending from the hip joint to the knee, and appearing deep-seated, as if in the bone. The pain was worse at night, had produced great lameness, and the muscles of the thigh were extremely shrunk. The increase of pain alluded to, she attributed to striking her foot against one of the stairs. A little above the patella, in front of the limb, there had been for some time a slight tumefaction, tender upon pressure, and depending, it would seem, on thickening of the periosteum. These are the important features of the case, and we proceed to the appearances found on dissection.

The muscles of the thigh were pale and shrunk—a bloody fluid escaped from the capsular ligament of the knee-joint—two or three small clots of blood were contained in the articular cavity—and, on removing the patella, an ulcer, about the size of a finger nail, was discovered in the upper and external part of its articulating surface. The head of the femur had lost its wonted smooth cartilaginous polish, but was rough and softened in its centre, whilst the thigh-bone itself was so soft that a knife could easily be pushed through it, and could readily be bent in any direction, about three inches from either extremity. It was at the upper part of this portion that the fracture had taken place, though the precise point would be difficult to determine, as there seemed to be no entire separation, as occurs in common fractures. The distortion of the limb did not arise from any overlapping, but resulted from a bending of the bone produced by the contraction of the muscles. Those in immediate contact with the trochanters and the upper half of the limb were blended together into an uniform mass, firm and semi-cartilaginous, of pale red colour, with bony spiculæ thickly dispersed through it, and puriform matter slightly tinged with blood. Corresponding to the swelling above the patella, the tendon of the *cruræus* was much thickened and altered in structure; pus issued from beneath it; and the periosteum was also greatly thickened and readily separated from the bone. The table of the thigh-bone at this part was almost entirely absorbed quite down to the condyles; the medullary cavity was filled with a bloody pulsatous substance; and

indeed so great was the disorganization that the author abandons the task of endeavouring to describe it in words, and refers to two drawings made by his pupil, Mr. Bullar, and engraved on stone for the volume of the Transactions which contains the paper.

Mr. Salter, in the remarks he has appended to the case, seems not to be aware that the connexion between cancer and this curious condition of the osseous system has been frequently pointed out by authors on surgery. He observes that Mr. Samuel Cooper is the only author, to whose works he has access, in which this disease has been noticed. We can assure Mr. Salter, that no less a person than Mr. Cooper's celebrated namesake, Sir Astley, has particularly adverted to the fact in his published *Lectures on Surgery*, and mentions, if we remember right, the case of a lady whose thigh-bone broke, on merely attempting to turn in her bed. We could cite several other authors to establish the correctness of our statement, but really we believe that the occurrence of a morbid state of the bones in many cases of cancer, is too well known to require any laboured disquisition to prove it so. It was but in a very recent number of this Journal that we translated a case from the French, in which the bones of a patient who had died of cancer, fractured in every direction as the persons engaged in that office were putting her into her coffin. We are not aware, however, that many accurate dissections of the diseased bone, such as that given to his brethren by Mr. Salter, are met with in works of common circulation, and therefore we have been induced to notice it so fully here. Mr. S. deserves credit for his zeal in laying before the profession, what he conceived to be a fact not generally known.

CLINICAL REVIEW.

IX.

GLOUCESTER INFIRMARY.

DR. BARON ON IODINE.

In a late number of the *Midland Reporter*, Dr. Baron has stated some notes on the use of iodine, which deserve the practitioner's attention. This most potent of all "absorbents," or stimulants of the absorbents, will probably come into much more extended use than at present—and for many other diseases than those to which it seems now applicable. We are informed by a respectable practitioner, that he finds the tincture of iodine a most powerful expectorant, in those cases where expectoration is desirable, as in pneumonia, asthma, &c. This hint may be worth attending to.

Case 1. The first case which Dr. Baron states, was that of a girl, 15 years of age, who came to the infirmary on the 5th April, 1828. She was extremely emaciated—abdomen distended and fluctuating, the fluctuation having succeeded peritonitis. Powerful diuretics were given, and iodine ointment rubbed over the abdomen, but no amendment ensued. The effusion increased, and paracentesis was performed. The effusion returned, and the iodine ointment was resumed. It was continued steadily for two months, and under its administration the whole of the second effusion was absorbed. The only other remedies used were leeches to the anus, and a mixture of rhubarb, taraxacum, and magnesia. The general health improved, and quinine was given after the iodine was left off.

Case 2. This was a man, about 35 years of age, and an intemperate liver. He entered the infirmary in a state of the utmost exhaustion and emaciation. His respiration was impeded—abdomen tumid—extremities livid—tongue florid red—

inappetency—frequent hæmorrhages from mouth and throat—had been tapped once before he came under Dr. B.'s care.

"My first object was to endeavour to improve his general health; to restrain the discharge of blood, and to act on the kidneys. I soon found, however, that little benefit was to be looked for in these respects, while the abdomen continued as it was. He was therefore tapped, and a very large quantity of serum was withdrawn. After this operation, an enlarged and hardened liver was very perceptible both to the touch and sight. I then recommenced what had been previously adopted without benefit, I mean the use of the iodine ointment, and a mixture with sulphate of potass and extract of taraxacum, together with the nitrate of potass and infusion of rhubarb. To these remedies were afterwards added some blue-pill, with squill-pill and extract of conium. The treatment of the complaint was chiefly conducted by these means, with occasional variations, all of which I need not specify. It is necessary however, to remark, that the abdomen filled very soon after the second tapping. Under the remedies above-mentioned, absorption began to take place, together with a manifest improvement in the nutritive process. His appetite amended, and he began to acquire flesh. While under my care he had two attacks of peritoneal inflammation, during which the swelling of the abdomen increased. In both instances it was necessary to have recourse to the lancet. This man from first to last was about eight months in the Infirmary. Before he went out, the ascites was completely removed; the enlargement of the liver was much reduced, and, with the exception of this circumstance, and some slight œdema of the lower extremities, there was no trace of his former disease. The patient thought himself quite well, and left the house contrary to my wishes. I was anxious that he should continue in the use of remedies which had been so efficient, in the full expectation that the

remaining affection of the liver, and the swelling of the feet, would have been altogether removed.

Case 3. The third case is different from both the foregoing. It was a boy, 15 years of age, who exhibited a well marked example of tuberculous disease of the serous membranes. The abdomen was tumid and hard, affording a distinct sense of fluctuation in some places. A hard and distinct tumour, the size of a half crown, was felt below the margin of the ribs on the right side. The skin was rough and scaly. The patient was much emaciated—suffered much distress after eating—and vomited almost every thing he swallowed. In addition, he shewed evident marks of thoracic disease—the breathing being oppressed, with pain on full inspiration. He had been ill six months, and mercury had been employed to remove the tension and tumefaction of the abdomen; but the disease had regularly gained ground. After endeavouring to allay the disorder of the stomach, and to regulate the bowels by small doses of aloes and opium, Dr. B. ordered the iodine ointment to be assiduously rubbed on the abdomen, night and morning, doing every thing in his power to promote the nutrition of the body and the absorption of the diseased parts. The liquor potassæ, in a bitter infusion, was frequently exhibited. In the course, of the disease, various remedies were used, and leeches were sometimes necessary; but the iodine was evidently the efficient medicine. It was persevered in for more than 18 months; and, although the disease, at times, appeared to set all means at defiance, the ultimate success was complete. Every trace of abdominal disease vanished in the end, and the patient was restored to perfect health.

Case 4. A child, 18 months old, was brought to our author, with enlarged and indurated abdomen—chest very narrow—all the other parts of the body much emaciated—flesh soft and flabby—nutrition almost stopped—as almost all solid food passed undigested. Our author recommended the abdomen to be rubbed twice a day with iodine ointment, and

soda, tartrate of iron, and colomba to be taken internally. In a short time the abdomen became less hard and tumid—the diarrhœa ceased—the evacuations became more natural—while the countenance and temper of the child improved. In a short time more the thorax expanded—the flesh became less flabby, and the child was able to walk.

Dr. B. thinks he has good reason for believing that tuberculous diseases of the lungs, in their incipient stages, have been removed by treatment similar in principle to the above. In such cases he has used the iodine ointment combined with opium, and directed to be rubbed upon the thorax. Other means were, of course, employed; but he does not think they would have been effectual without the iodine.

“Allow me, now, to select two other cases, in which the most gratifying success has arisen from the use of the iodine. One was that of a female nearly forty years old. A tumour about the size of a child's head occupied the lower portion of the abdomen, and pressed on the pelvic viscera. Neither the fœces nor urine could be discharged without the greatest difficulty. It was so great as to require the frequent use of the rectum-bougie, as well as of the catheter. Besides these means of temporary relief, leeches to the anus, anodynes, fomentations, &c. were occasionally had recourse to. The iodine ointment was, in addition, assiduously employed. Towards the conclusion of the treatment, I directed the patient to take a solution of the chloride of lime; prior to its use, a decrease in the size of the tumour was rendered manifest, on examination, as well as by less frequent need for the bougie. The patient was under treatment in the Infirmary for many months. The disorganization, I am happy to say, has been so completely removed, that no trace of it can be felt externally, and all the inconvenience and pain which she suffered from it, have nearly disappeared.

“I have lately treated another case, of the same description as the preceding. The disease had, however, made greater progress. The tumours not only pressed

upon the pelvic viscera, and impeded their functions; they likewise expanded into the abdomen, and produced all the distress consequent on this sort of disorganization. It was manifestly composed of different textures; some portions being hard and others soft; and the surface of the abdomen affording that unevenness which denotes the origin and the character of the disease. In this case, the distress arising from the pressure of the tumour upon the bladder, was so great, that it was necessary to employ the catheter every day. Under these unpromising circumstances, the use of the medicine of which I have been speaking, was begun. It was employed both internally and externally for a considerable time. The result has been a great reduction of the tumour, complete freedom of the urinary organs, and such an improvement in the health of the patient, as to permit her to perform the arduous duties of an active situation with ease."

Dr. B. introduces some pathological observations on the evolution and progress of morbid structures; but with his opinions on these subjects our readers are well acquainted. The facts of the paper we have here recorded, as the most valuable portions of it.

and we are happy to observe that the stores of information accumulated in its walls, are likely to be made available to the profession by the publication of cases and the clinical lectures of its professors. It seems that M. Bielt and Alibert have each commenced a "cour de clinique" the most interesting and valuable parts of which will be given from time to time by M. Cazenave, in the *Journal Hebdomadaire*. We think we shall be doing some service to the state by dedicating a space in our hospital department to these reports. It has always been our aim, and we trust we have, in some degree, succeeded to render this *Journal* a depositary of practical facts, a mirror, as it were, of the "very age and body of the time," as far as medicine is concerned, and a work of something more than that ephemeral stamp which is hung aside and forgotten after the careless perusals of the day.

The first affection to which we shall allude is *Acne* in its different forms.

X.

HOSPITAL ST. LOUIS.

DISEASES OF THE SKIN.*

Perhaps there is no class of diseases with which practitioners generally are so little acquainted as the complex and numerous affections of the skin, and considering the limited sphere of observation presented to most medical men in private, or indeed in hospital practice in this country, the circumstance is less to be wondered at than regretted. All who have paid attention to the French hospitals, have spoken in the highest terms of the opportunities afforded at the St. Louis for the study of these diseases,

Case 1. A miller, 35 years of age, of robust and sanguineous habit, who had worked hard, but never used excesses in diet, was affected five years ago with *acne rosacea* on the face, which, after repeated attacks of inflammation, ended in prominent hard tubercles, presenting all the characters of *acne indurata*. The tubercles were surrounded by much swelling and injection of the capillary system of the face, but digestion was good, and the general health unaffected.—Aperient medicines were tried for some time without effect, and M. Bielt determined to employ, at the same time, on opposite sides of the face, blisters and frictions with the ioduret of sulphur, the former recommended by Ambrose Paré, the latter long used with advantage by himself. Both were successful, but the blistering answered quickest and best, and the cure was complete at the end of three months and a half. The patient then returned to his employment, and in the course of five months the eruption reappeared, though not in so severe a form.—There were now merely pustules without much alteration of the skin, and M. Bielt

* *Journ. Hebdom.* Nos. 34—38.

expected that mineral acid and aperients would be quite sufficient to check their progress. In this, however, he was deceived, and blisters were again resorted to with such favourable effects, that it is hoped they will a second time effect a cure.

Case 2. This was an example of *acne rosacea*, following intemperance, especially in drink. Revulsives having failed, the ointment of the hydriodate of potash, accompanied with occasional local bleedings, produced the re-absorption of the pustules, diminution of the capillary injection, and finally, a return of the healthy colour in the face.

In his clinical remarks on these cases, M. Biett admitted the four-fold division of Willan into *acne simplex*, *acne punctata*, *acne indurata*, and *acne rosacea*. Though certainly distinct, yet they frequently run into one another, especially the three first, and M. Biett thinks that it is useless or worse to consider them as separate diseases, as all are essentially seated in the small follicular glands. With respect to the treatment, M. Biett calls in question the efficacy of purgatives and tonics so usually recommended, and believes that we should have recourse to topical means. In some very severe cases the disease has entirely yielded to blisters; and acid lotions, as that with the hydrochloric acid, lotions of bitter almonds, &c. are frequently of service. M. Biett has obtained very good results from the employment of resolvent ointments, especially that of the ioduret of sulphur, but mercurial washes, the red wash, Gowland's lotion, he has never seen of service. Cauterization with the nitrates of mercury or silver leave deep cicatrices behind them, and are frequently attended with serious accidents. M. Biett proposes to return hereafter to the particular variety of *acne rosacea*.

LUPUS.

Three cases of this disgusting looking malady are detailed, and each present some peculiar points of interest. In the first the

disease was exclusively local and unattended with any general symptoms of scrofula.—The inferior part of the face was affected, and the eruption was singularly modified by an attack of small-pox, which the patient had whilst in the house. The cicatrix, however, subsequently gave way, and the disease has re-appeared. M. Biett remarks, that the condition of the cicatrix in lupus will discover to a person accustomed to such cases whether or not the disease will return. If it is unequal and traversed by bands we should fear such an occurrence; but if smooth and soft, it will not give way. We suppose that this observation is to be taken with some degree of limitation, because, be the cicatrix as perfect as it may, it must still be more prone to suffer afresh from the disease, than the original sound skin.

The second case is alluded to as shewing the inefficacy of the preparations of iodine, although so much lauded in scrofula of late. The patient had taken the tincture for 142 days, without the least amendment. We wonder he could take it so long at all.

The third case was that of a young man affected with scrofulous lupus, who was once cured by the operation for making a new nose, but in whom the disease had returned. It originally began three years ago in the form of a tubercle of the mucous membrane of the nostrils, which extended from within outwards, and invaded the *ala nasi*, a rare instance of lupus commencing in the mucous texture. The right cheek became discoloured, tubercles formed in it, ulcerated, and the malady spread, when the patient was received in the hospital of Delpech, who cauterized the cheek with the nitrate of mercury, and the nose with the nitrate of silver. The improvement being temporary only, M. Delpech performed the operation for a new nose with such success, that in twenty days cicatrization was complete. However, as has been mentioned, the patient is now in the St. Louis with a return of the complaint, which occurred after the expiration of two years in the right cheek, then attacked the left, and subsequently invaded the internal surface of the artificial nose, from which it has spread to the external. The nose itself is round, prominent, not much de-

formed, and M. Biett is treating the complaint by cauterization.

PORRIGO.

A young man, about three years ago, having very little hair, bought a second-hand wig, and shortly afterwards the arms and legs became affected with an eruption, having all the characters of *porrigo favosa*. Subsequently the hairy scalp became affected, and on admission into hospital, yellow favous crusts depressed in the centre existed in these parts. By means of frictions with the ioduret of sulphur, the disease disappeared, and at present no more than discolouration and injection of the skin remain. The case is reported as one of contagious origin, and the unfortunate wig is made both by patient and doctor to bear all the onus and shame of the business. The first appearance of the eruption on the arms and legs might seem to militate against this view, seeing that wigs are most commonly worn upon the head. The patient, however, helps out this lame part of the *contagious* theory, for he states that he often lost the wig in his sleep, and found it on awakening sometimes on one side of him, sometimes on another; and besides, says the reporter, the disease might have existed first upon the head, without its attracting the patient's attention. Seriously, we think that the idea of contagion, in this instance, is founded on very limping kind of evidence, if no better could be got than that which has been published.

In another case, which has just been dismissed, the *porrigo* was extremely diffused. Not only the scalp, but the trunk and limbs were covered with large favous crusts, and yet the patient preserved all his physical powers. The treatment consisted in the application of alkaline remedies externally, which effected a perfect cure, the scabs dropping off, and nothing remaining but discoloration of the parts beneath.

PSORIASIS.

A seaman, ætatis 24, after three paroxysms of intermittent fever, was suddenly attacked with an "eccentric explosion" on the skin, which was almost immediately succeeded by *psoriasis diffusa*. The scales

became detached, and a vesicular eruption was established on the patches themselves, which gave the whole disease an appearance quite different from the scaly affections. Under the influence of baths and light mineral acids, the vesicular eruption disappeared, and the *psoriasis* returned. M. Biett observed, that he has frequently seen these squamous diseases of the skin succeed intermittent fevers, especially when connected with lesion of the hypogastric viscera; lepra and *pityriasis* have frequently shown themselves under these circumstances. In another patient in hospital the disease began as *psoriasis gyrata*, and ended as *psoriasis diffusa*. In a third patient affected with simple *psoriasis*, M. Biett employed the "dento-chloruret of mercury," (the corrosive sublimate, we suppose,) in doses of the one-twentieth of a grain, up to the amount of thirty grains. The disease, which had existed for upwards of a year and a half, completely yielded to the medicine, but has since returned.

SCABIES.

In a patient who had laboured under itch for five months, M. Biett made trial of frictions with oil, in the manner recommended by M. Delpech. The itching ceased in a very few days, and the vesicles gradually subsided, a result which has followed this treatment in several instances. M. Biett intends to institute experiments on a scale sufficiently extensive to determine the value of the treatment. We fear that nothing will answer like sulphur, but the experiment is worth trying.

B. Biett disagrees with Bateman in regard to that not very unfrequent affection *sycosis menti*. Bateman has withdrawn it from the order of pustules and placed it under that of tubercles, in which M. Biett thinks that he is wrong. The disease, according to the latter, begins as *psyracicus*, acuminated, distinct pustules succeeding one another, and only ending in tubercles, after repeated attacks of inflammation.

XI.

ST. GEORGE'S HOSPITAL.**I. SLOUGHY ABSCESS OF THE CELLULAR MEMBRANE OF THE THIGH AND ULCERATION OF THE CARTILAGES OF THE KNEE-JOINT.**

The cellular texture of the lower part of the thigh is peculiarly liable to unhealthy inflammation and suppuration. We are not aware that this affection is described in a particular manner by authors, but it well deserves to be so, on account of its frequent occurrence, and generally fatal termination. The subjects of the disease are mostly of a weak and scrofulous habit, and persons exposed by their occupations to atmospheric changes would appear to suffer more than any others. The knee-joint has been implicated in all the cases which we have observed, but whether in a primary or secondary manner it is difficult precisely to determine. The characters and progress of the affection will be better illustrated by one or two cases, than by any description we can give.

Case 1. Eliza Goddard, ætatis 33, was admitted on the 18th of March, under the care of Mr. Hawkins, with much diffuse swelling about the knee, the upper part of the leg, and the lower portion of the thigh. The skin was not discoloured in the least degree; the leg was œdematous; the thigh was not, but rather resembled in appearance the phlegmatia alba dolens, being somewhat elastic under pressure. Above the patella on the inside of the thigh was the opening of an abscess, which discharged a large quantity of pus. The tenderness of the parts on pressure was excessive, the pulse very quick and weak, the constitution greatly disturbed.

The swelling had first appeared about five weeks previously, and the abscess had been opened in the course of a week from the commencement of her complaint. She was ordered by Mr. Hawkins a pint of porter daily, and an effervescing draught containing the carbonate of ammonia, spirits of nitric æther, and laudanum, every

six hours. She also took an opiate at night.

On the next day, another opening was made below the knee and half a pint of bloody pus discharged with much relief. The bone was not exposed, nor did the probe pass fairly into the joint, but it went for some distance up the thigh betwixt the muscles. Bark and red wine were ordered, and on the 24th one or two incisions were made in the leg, and sloughy cellular membrane exposed. The pulse was 140—the tongue generally clean, but dry.

30th. Her health is on the whole improved; she has less irritation, and is not become materially weaker. The abscess below the knee discharges rather less, but that on the inside of the thigh passes up for some distance beneath the extensor muscles. The opening in question was enlarged that the escape of matter might be free, and a counter opening was also made through the vastus externus. On the 31st, she complained of great sickness and pain at the præcordia, the discharge was copious and of bad quality, the depression great. Brandy was given, and next day a draught containing the liquor opii sedativus. Diarrhœa succeeded, and was checked by chalk mixture, but the patient was fast wearing out with the constant discharge, the hectic, and the excruciating pain in the limb. More than one consultation was held amongst the surgeons, but the general disturbance of the constitution was deemed a perfect bar to amputation, which was therefore not proposed. A considerable portion of the shaft of the femur could be felt by the probe, exposed and rough; aphthæ formed about the mouth, and on the 14th of April the patient sank, in spite of vigorous support.

Sectio Cadaveris. The body was extremely emaciated. The several incisions about the knee exposed the cellular texture in a dark and sloughy state, and the one on the inside of the thigh passed through the vastus internus down to the inner condyle, and into the knee-joint. The femur, up to the middle of its shaft, or even higher, was completely isolated from the soft parts

around, which formed the walls of one large sloughy abscess. The capsule of the knee-joint and lateral ligaments were almost entirely destroyed—the joint itself communicated with the cavity just described by means of the destruction of its soft parts, and with the external air through the medium of the incision on the inside, and another on the outside of the thigh. The cartilages of the knee-joint were totally destroyed by ulceration, and the bone discoloured, but not carious. The patella appeared to be softened; the joint of the head of the fibula was affected in a similar manner with the knee, but not to so great an extent. The femoral vessels though actually forming part of the walls of the sloughy abscess in the thigh were pervious and healthy. The viscera were not examined.

Case 2. John Foster, æt. 17, was placed under the care of Mr. Hawkins, on the 25th of March.

He had pain and tenderness in the left ham, and in various parts around the knee, accompanied with a little fullness of the parts. The limb started much, and the pain was increased upon pressure, but what was singular, he could walk about at times as well almost as if no uneasiness whatever existed. There were febrile symptoms, as brown tongue, parched lips, and so forth. In the course of a few days the fullness about the knee had increased, and the synovial membrane seemed to be distended. There was not much pain or tenderness experienced, except when pressure was made in the course of the popliteal nerve. Leeches and a poultice were applied, but the fullness of the lower part of the thigh was soon converted into evident swelling with a sense of deep-seated fluctuation, and much constitutional disturbance.

Salines with antimony, and an opiate at bed time.

The fluctuation became more distinct, and on the 17th of April a seton was passed from the inside of the thigh through the ham, taking care to avoid the popliteal nerve, which lay to the outside of the seton thread. Some purulent matter of

very offensive quality followed the introduction of the seton. Profuse discharge and irritative fever of a nature to preclude, in the opinion of Mr. Hawkins, any operation, were now set up; a large counter-opening was required in the under part of the thigh, which exposed the femur rough and dead; the patient progressively sank beneath the irritation, and on the 25th or 26th inst. he expired.

Section Cadaveris. We had not the opportunity of witnessing the examination of the body, but we understand from those who did, that the appearances in the limb were similar to those in the former case. The cartilages of the knee-joint were in a state of ulceration, and a *foyer* of pus extended upwards along the femur, which was bare, and in some parts dead. The vessels in the ham, and especially the nerve, were in contact with the matter, but the cavity of the artery and vein was free, and the coats of the vessels were not observed to be inflamed.

The case altogether bears a striking similarity to the first, and also to another which occurred in the practice of Mr. Keate.

Case 3. George Ranscombe, æt. 34, admitted on the same day as the preceding patient, under the care of Mr. K. The lower half of the right thigh was occupied by an extensive and deep-seated abscess, which had commenced with swelling four weeks previously. He stated that at different times, but not lately, portions of bone had exfoliated from the femur. He was much worn down, of scrofulous aspect, with dry tongue, small and weak pulse, and hectic flush upon the cheek. Openings were made at each side of the thigh at its inferior part, and a considerable quantity of purulent matter discharged. A poultice was applied, and anodynes with bark and other medicines of that description freely given. On the 28th, a counter-opening was made on the outside of the thigh, and the bark in its ordinary form disagreeing, the sulphate of quinine was prescribed in its stead and with good effect. The improvement, however, was of very short duration, for in a day or two the patient fell back into his for-

mer state of hectic fever and excessive irritation, under which he sank on the 21st of April.

Sectio Cadaveris. The body was attenuated to a great degree. Nothing unusual was observed in the chest or the abdomen. The femur from about three inches below the trochanters to the knee-joint, was separated from the soft parts entirely and placed in the centre of one large sloughy abscess completely encircling the shaft of the bone for the space described. The bone itself was more or less deprived of its periosteum, and towards the condyles had several carious or ulcerated spots. In the neighbourhood of these new ossific matter was deposited, and in one part in particular, a good example of incipient necrosis was presented. The semi-lunar cartilages of the knee-joint were ulcerated, but the rest of its structures were comparatively unaffected.

We have thought it right to detail these cases because they may serve to describe an affection worthy consideration, both on account of its frequency and danger. The cellular tissue around the femur at its lower part would seem to be particularly prone both to chronic and acute inflammation. When the former takes place, necrosis is the consequence; when the latter, the patient is too often worn out by the hectic fever and great irritation set up. In all the cases that we have seen, the knee-joint has been more or less affected, though sometimes indeed at an earlier period than at others. When the inflammation is rheumatic, calomel and opium appear to hold it more in abeyance than any other means with which we are acquainted, but even these remedies frequently fail. In the common forms, such as the cases above detailed, we are not aware that any specific measure has proved of much avail, and very much fear that it will not. The question of amputation will no doubt present itself to the mind of the surgeon, and a number of circumstances peculiar to the individual case must guide his decision upon this point.

II. NOTES OF THE DISSECTION OF A PATIENT WHO DIED OF APOPLEXY—STATE OF THE HEART AND ARTERIES.

We are induced to publish the notes of this dissection, because they support important views both in pathology and practice. The patient was a woman scarcely 40 years of age, who died under the care of Dr. Seymour, and was examined on the 18th of May last, in the dead-house of the hospital. The body was remarkable for its fulness of contour and embonpoint.

Head. Nothing particular was noticed about the calvarium, dura mater, membranes on the surface of the brain, or that surface itself. On carefully slicing down the right hemisphere to the lateral ventricle, the latter was found filled with bloody serum, and contained in its cavity a clot of recent blood. The coagulum was mainly in the body of the ventricle, and passed for some depth into its descending horn, but not into the anterior or posterior. Its seat was partly in the substance of the thalamus opticus, partly in the corpus striatum, but more in the former than the latter. The clot was about the dimensions of a walnut, and had made its way into the cavity of the ventricle by breaking up the connexion between the thalamus and striated body. The left ventricle was distended by much bloody serum, but no coagulum was present. The arteries at the basis of the brain, especially the basilar and its chief ramifications, had osseo-cartilaginous depositions in their coats. No rupture of any one large vessel was detected.

Heart. The parietes of the left ventricle were full an inch in thickness, but its cavity was not much enlarged. The muscle of the right ventricle was not above a line in thickness, and tore with the slightest force. The heart on the whole was larger than natural. The mitral valve was thickened, and gritty depositions were felt in its substance. Ossification was commencing at the attached border of the semilunar valves of the aorta, and the coronary arteries were beginning to be ossified. The aorta itself, or at least its arch, for the rest was not examined, was free from disease.

Nothing unusual was seen in the abdomen, save that a small fleshy tubercle grew from the external surface of the uterus.

As the effusion of blood was found in the right ventricle, it may be well to state that the patient during her attack had laboured under hemiplegia of the opposite side, as generally happens. Our object, however, in noticing the case was not so much in reference to apoplexy, as the connexion betwixt the condition of the heart, and that of the arterial tubes. The latter were ossified, or beginning to be so, and the left ventricle of the former was hypertrophied in its parietes, even somewhat dilated in its cavity. This is not a matter of chance, nor a mere coincidence; on the contrary, we believe that the two will commonly be found to co-exist. Which is the cause and which the effect, is, of course, very difficult of absolute proof, although we believe that the state of the heart is the secondary affection, and only stands heir to that of the arteries. These tubes becoming rigid, the circulation is virtually impeded, and thus an additional onus is thrown on the left ventricle, which it meets, as muscles do elsewhere, by an increase in the volume of its fibres and walls. In the interesting case related by Dr. Johnson in the last Number of the Journal, this condition of the circulating organs had occurred, and whatever explanation our readers may adopt, the frequency of such occurrence is beyond a doubt. In the majority of cases the ventricle is simply hypertrophied without dilatation of its cavity, and the right chambers of the heart are frequently but little altered, although their condition is certainly subject to variation. Thus, in Dr. Johnson's patient, the cavity of the right ventricle was extremely small, and in another which we lately saw it was unusually large, but in many we believe that the fact is as we stated, and the alteration comparatively little. As we mean in a future report to return to the interesting subject of diseases of the heart, we shall say no more upon the point at present.

III. ULCERATED NÆVUS AT THE BEND OF THE ARM.

On the 23d of April, a child was brought for the inspection of Mr. Keate with an irregularly shaped ulcerated nævus at the bend of the left elbow joint in front of the arm. The nævus had existed since birth, had not subsequently undergone much increase of volume, was about the dimensions of a half-crown piece, but much more irregular, and a considerable part of its centre had been eaten away by the ulcerative process. The skin had apparently merely given way in the first instance, in consequence of the motions necessarily taking place in the joint, and not from ulceration, though the latter was speedily grafted on this accidental fissure. A straight pasteboard splint, and afterwards a wooden one, were applied to the back of the arm, and the two bound together by some turns of a roller above and below the ulcer. The limb being thus kept quiet and immovably extended, various dressings and a poultice were employed with the view of healing the sore. The attempt, however, not proving successful, the potassa fusa was applied to the surface of the parts, so as to induce a moderate slough, the close proximity of the brachial vessels forbidding the formation of a deep one.

The slough came away in two or three days, but a good deal of swelling at the bend of the arm and some general disturbance of the system ensued. These gradually passed away, and the sore looked clean, although a sinuous opening led down to a cavity containing matter beneath the granulations. Compression was applied, the sore diminished, and the last time we saw the little patient, it was nearly healed.

XII.

HOPITAL DE LA CHARITÉ.

DISEASES OF THE PROSTATE GLAND AND VESICULÆ SEMINALES. AFFECTION OF THE HEAD.

M. Dalmas, one of the rédacteurs of our

French hebdomadal contemporary, has published a not uninteresting paper or report under the above title. The object of the author will be best explained by detailing his cases first, and then the deductions which he draws from them. We may premise, however, that M. Lallemand, in his work on the Diseases of the Urethra, has remarked on the similarity between some affections of the generative organs and those of the brain and spinal marrow, a similarity which that celebrated professor believes to be productive of numerous errors in practice. Upon this hint it seems M. Dalmas writes, and we therefore proceed without further comment to his cases.

Case 1. This is not our author's own, but taken from Stoll.

A musician, ætatis 32, was admitted into Hospital on the 8th October, with delirium, and small, weak, and very rapid pulse. The only account that could be got of him was, that he had been confined to bed for a month, during which time a surgeon had been treating him for disease of the testicles. On admission, the prepuce was in a callous state, and immovably adherent to the glans, which was left half uncovered. The left testicle appeared to be enlarged, and the orifice of the urethra was so narrow that no bougie could be made to enter it. Blisters, sinapisms, infusions of serpentaria, and contrajerva, with camphor, in large doses, had the effect of raising the force of the pulse, and, at the expiration of two days, the patient recovered his senses sufficiently to state that, after repeated gonorrhœas, he had not been able, for the last eight years, to make water without the greatest difficulty and distress. He was about to mention some more particulars, when he fell again into his former delirious state, and died on the 12th. During his continuance in hospital he scarcely voided any urine, but at length an instrument was passed, and the contents of the bladder discharged.

Dissection. Near the frænum of the prepuce was a stricture of the urethra, but beyond that point the canal was perfectly sound. The orifices of the ejaculatory ducts were dilated, and pus issued from

the left on compressing the prostate. Pus was also squeezed out from all the excretory ducts of the latter gland, and on cutting it open, a number of little abscesses were found on it, some of the size of a lentil, and others that of a pea. The left vesicula seminalis was filled with pus, and its coats hard, thickened, and inflamed in several points. The tunica vaginalis was closely adherent to the left testicle, which was larger than the right, and contained in its substance an abscess as large as a nut. The bladder contained a little bloody urine, and its mucous membrane presented large patches of deep red colour, looked like marks of contusion. The kidneys were redder than usual; the intestines were inflamed.

The left lung was filled with crude tubercles, and the intervening parenchyma was altered in structure. The pleuræ on this side were adherent, considerably thickened, and formed into laminæ separable one from the other. The lateral ventricles of the brain were full of yellow serum.

Case 2. Jean Pica, ætatis 24, a servant and unmarried, was admitted into the Charité on the 14th November, 1827, with hot skin, flushed face, dry tongue, pulse 98, small and sharp, restlessness, and pain in the head. The bowels had not been opened for two days, and he had occasional cough, but the respiration was heard well throughout the chest. Two months previously he had had what appeared to have been inflammation of the peritoneum in the hypogastric region, which was cured by antiphlogistic measures. The cough had existed for six weeks, the symptoms for which he was admitted were only of four days duration. A tisane only was prescribed; next day the patient was worse, the belly being painful upon pressure, and his answers unconnected. Fifteen leeches to the basis cranii, oxymel drink, sinapisms to the lower extremities, and lavements, were had recourse to, but on the 16th the delirium was more marked, the tongue was dry, and convulsive actions of the muscles, which the patient had previously had, were now in great

measure replaced by subsultus tendinum. A vein was opened in the arm, the delirium increased, and on the 19th, the pupils were dilated, with retention of urine. These symptoms augmented, and in the evening of the 20th, the patient died.

Dissection in the morning of the 22d. The membranes of the brain were dry, the convolutions flattened, the ventricles filled with serous fluid of a milky colour, and the septum lucidum softened. Both lungs presented miliary tubercles, but no vomica or cavern. Two folds of the small intestines were bound together by recent false membranes. The mucous membrane of the bladder was of a dark red colour, studded with some patches of lymph, and thickened. The cavity of the bladder was half filled with turbid urine. The prostate was slightly enlarged, and on squeezing it a quantity of yellowish matter issued from the excretory ducts. On making the section of the gland the appearance, both to M. M. Dalmás and Lallemant, was that of suppuration in the follicles. The left vesicula seminalis was double the volume of the right, of deep yellow colour, and in its cavity, which had lost in great degree the septa it naturally presents, "veritable purulent matter" was contained. The vas deferens on this side was obstructed for the space of five or six inches by matter of the same description but of greater consistence. The mucous follicles of the inner membrane were also filled with it.

This patient, it should be stated, had never laboured under any gonorrhœal or syphilitic affection.

Case 3. Michel Boex, æt. 23, a journeyman, was admitted into hospital, September 10th, under the care of M. Rullier, in a remarkable state of fatuity and depression. He could give no satisfactory account of himself, but those who brought him said that he had laboured, for three months, under diarrhœa which was lately checked, and that he vomited every thing he took; the pulse was not above 60 at the most. M. Rullier, struck with the state of stupor and depression in which the patient was, ordered sinapisms and

emollients. The skin grew slowly warm, the pulse rose, and the stupor changed into moderate delirium, with subsultus tendinum and involuntary discharge of the urine. Leeches, blister to the neck, infusion of arnica, and a lavement, were the means employed; but, on the 17th, we find dilatation of the pupils, and coma interrupted by restlessness and expression of complaint. Next morning death took place.

Dissection. The arachnoid tunic was "troubled" on the anterior surface of the hemispheres of the brain; the pia mater infiltrated here and there with sero-purulent fluid; the substance of the brain injected in a high degree; the septum lucidum softened, but not entirely disorganized. The mucous membrane of the stomach was of reddish brown colour, and softened in the greater part of its extent, whilst in several places were small round ulcers apparently confined exclusively to the tunic in question. The great intestine was the seat of chronic inflammation, and exhibited its consequences, swelling, induration, injection, and numerous ulcers of the mucous membrane. The urethra was healthy, so was the bladder, but, on squeezing the prostate, pus, or rather a pulaceous matter, was expressed. The vesiculæ seminales were filled with the same sort of substance, and so were the vasa deferentia.

Case 4. This patient was not seen by M. Dalmás during life, but he was informed by M. Littré, who conducted the post-mortem examination, that he died with head symptoms, and that traces of meningeal inflammation were found upon dissection.

The bladder was filled with limpid urine, and a stricture of the urethra existed at the distance of an inch and a half from the neck of the bladder. The left half of the prostate was "scirrhous," the right was whiter than natural. The vesiculæ seminales were small, hard, and contained a dirty-looking matter in very small quantity. The vasa deferentia, from circumstances, could not be examined, except in that part of their course which intervenes between the testicle and the

outer abdominal ring. They presented puriform swellings, increasing in volume the nearer they were to the testis, and containing soft cheesy looking matter. The cavity of each vas deferens between these enlargements was obliterated, and nearer the testicles the cheesy matter was replaced by more genuine-looking pus. The left epididymis was converted into an irregular tumour, as large as the testicle itself, and the corpus Highmorianum of the latter was "evidently scirrhus." The right testicle was tolerably sound, but the epididymis was dwindled into a small cylindrical cord, and where it becomes vas deferens, one of the swellings described on the latter communicated with a fistulous opening in the scrotum. Another scrotal fistula opened into the corpus Highmorianum. Each tunica vaginalis presented specimens of encysted hydrocele.

So much for the facts on which our author proceeds to build some reasonings; and now let us look for a moment at the latter. He believes that all four cases were examples of the same affection, and that the matter discovered in the vesicula seminalis of one, and the prostate, vas deferens, or even epididymis of the other, presented too much similarity of physical character, to be other than identical. The differences of density, &c. he believes to be easily explained by the difference of organs in which it was found, and the period of its formation. Another question mooted by M. Dalmas is the origin of the matter, and this he thinks to have been simple inflammation, rather than any tuberculous diathesis. The grounds for his opinion we need not detail, as they are bottomed on the facts of the case themselves. M. Dalmas believes the prostate gland to be first affected, then the vesiculae seminales, next the vasa deferentia, and, finally, the epididymis and testicle itself. The minutiae of his theory, for theory it is after all, we omit, in order to notice the sympathetic affection of the nervous system produced by this disease of the genital apparatus. Our author observes, that we may suspect a morbid condition of these organs, when, in persons about the proper age, inflammatory affection of the abdomen is followed after an interval by delirium, fever without paralysis or convul-

sion, retention of urine, and pain in the hypogastrium; especially if these symptoms have been preceded by gonorrhoea, discharges, or swelling of the testicle.

So much for the paper of M. Dalmas, which is certainly possessed of much interest, if not novelty. We candidly confess, however, that his cases seem to us more important than his inferences, and likely to prove of service, whether the latter be right or wrong. The space to which we limit our Periscopic articles, prevents us from making some remarks on these cases at present, but no doubt a future opportunity will occur for indulging in our rights as reviewers. We would simply remark, that we think it by no means proven that inflammation existed in all, and that therefore the investigation is opened to unbiassed and diligent enquirers. Neither is it so certain, in our humble opinion, that the fons et origo of the fatal symptoms was unequivocally located in the genital system, at least in all of the cases in question. However, our knowledge of the affections of the prostate, and particularly of the vesiculae seminales, is yet so completely in its infancy, that dogmatical opinions on the subject would be both presumptuous and absurd.

II. PLEURITIS HÆMORRHAGICA—OPERATION FOR EMPYEMA—DEATH—DISSECTION. Wards of M. LERMINIER. Reported by M. PORTAL.

Case. Dominique Lyon, aged 28 years, entered LA CHARITÉ on the 17th Feb. 1829, having been ill about three weeks, but not incapable of working at his business of jeweller. He stated that, for six weeks previously, he had had wandering pains in the left side of the chest, aggravated by damp weather and by corporeal exertion. A fortnight before he entered the hospital, the pain in his side became acute, accompanied by cough, without expectoration, but attended with dyspnoea, especially on ascending stairs. To these symptoms were added debility

and prostration. No medical means had been employed. On examination at the hospital, (18th February) the following symptoms were noted:—considerable dyspnoea—frequent cough, with trifling expectoration—some pain in the left side of the thorax—pulse 90. Auscultation shewed bronchial respiration throughout almost the whole of the posterior part of the left lung—but no respiration in the front and inferior portion of the same. In the upper and front part the breathing was louder than natural (puerile.) The sound, on percussion, corresponded with the auscultic indications. The patient was copiously bled four times in succession without any apparent benefit, and diuretic medicines were exhibited.

On the 21st of February, the dyspnoea was found to be much increased—the cough frequent,—the dulness of sound in the left side was now complete, both before and behind. Egophony was heard at the very summit of the chest. The left side, on being measured, was found to be an inch larger than the right side. The intercostal spaces were also wider. The heart was found to be displaced, and the pulsations were felt in the right side of the chest, five or six inches from the natural situation.

On the 12th of March, the symptoms were so pressing, that life was threatened, and the next day M. Roux was called in.—The presence of a fluid in the left side of the chest, was ascertained, and the distinguished surgeon above named, performed the operation for empyema in the usual place. When the stilet was withdrawn a very sanguinolent fluid flowed out freely, for a few seconds, but then stopped, except when the patient coughed. Air rushed into the chest at each deep inspiration.* Not more than ten or twelve ounces of sanguinolent fluid were obtained; but even this evacuation appeared to give considerable increase of facility to the breathing. But

* The reporter says, at each *expiration*; but this is impossible. He has either made a typographical mistake, or he knows nothing of what he is talking about. EDITOR.

this amelioration only lasted about an hour when the pulse was found to be 120—the anxiety great—and the patient unable to lie on any but the left side. He died the next day, 14th March.

Dissection. A small puncture being made into the left side of the thorax, and a candle being held opposite the puncture, an inflammable gas issued forth and became ignited for some seconds, and disengaged an odour of sulphuretted hydrogen. On making a larger opening there issued three or four pints of a very sanguinolent fluid. The costal and pulmonary pleura were found covered with false membranes, some of them more than two lines in thickness. In the substance of some of these false membranes, and even in the substance of the pleura, numerous small tubercles were discovered. Part of the right lung was hepatized. The heart was pushed to the right of the middle line of the sternum. The pericardium contained a considerable quantity of fluid blood, without any clots. There were a good number of small ulcerations in the mucous membrane of the stomach—no other lesions of any consequence in any of the organs.

Remarks. It was doubted by some of the medical men present at this dissection, whether the sanguinolent fluid found in the left side of the chest was not the result of some hæmorrhage from the operation tinged the serous fluid previously in that side. The reporter, M. Portal, rejects this opinion and insists that it was a *sanguinolent effusion*,—or, in other words, an hæmorrhagic pleurisy—averring also, that the blood found in the pericardium had traversed the parietes of that bag, from the general cavity of the pleura, “par cette singulière propriété qu’ont les tissus vivans de transmettre à travers leurs trames les liquides, &c.” We do not see the slightest reason for falling in with this piece of pathology in the present case—and indeed we have no doubt that it was one of pneumo-thorax. There is no mention made of the state of the left lung—nor does there appear to have been any

search made for an aperture in that organ. In short, we cannot compliment Mons. Reporter Portal upon the present occasion, and cannot but wonder that the Editors of our cotemporary (*Journal Hebdomadaire*) did not see the necessity of revising the above report.

XIII.

ST. THOMAS'S HOSPITAL.

[Mr. Bury, Reporter.]

1. VENEREAL SORE ON THE MAMMA FROM SECONDARY SYPHILIS IN THE MOUTH OF A CHILD AT THE BREAST.

A woman, æt. 40, applied at St. Thomas's Hospital January 9th, 1829, having an elevated sore, of a suspicious character, nearly the size of a shilling, on the left breast to the right of nipple. Its surface was slightly excavated in the centre ;—smooth, having no observable granulations ; and the discharge from it was small, thin, and bloody—there were great pain and tenderness, and some hardness of its base. One of the axillary glands was enlarged to the size of a chestnut. This, the patient stated, had been the case for nearly six weeks, at which distance of time she also said she first perceived the sore on the breast. The latter, from her account of its nature when it first appeared, and from the description she gave of its subsequent mode of increase, which were exactly those of a primary syphilitic ulcer, was believed to be such, and even its appearance alone would have guaranteed such an opinion.

The patient attributed the origin of the ulcer to giving suck, for some weeks before its first appearance, to the child of another woman, who was known to have had the venereal disease—whether at the time the infant was born, or whether it had been cured in her before its birth, we could not distinctly ascertain, though it would have been satisfactory to have known ; but we should suspect the former. The child, about six weeks after birth, had ulcers of the mouth and blotches on the trunk, and when in this condition, it was applied to the patient's breast.

The aspect of the sore being so decidedly specific, Mr. Green thought the present a favourable opportunity to ascertain whether a sore of this kind, viz. one primarily syphilitic, could be produced by the local application of the matter of ulcers belonging to the secondary form of lues.—This, he considered might be brought to the test of proof by waiting the result of the case, without the interposition of the specific remedy. Some arg. nitr. was applied to the ulcer, and aperient medicine, with pulv. ipec. co. given internally.

Feb. 5th. The woman came to day, having iritis of the left eye, which came on about a week ago. The sore on the mamma somewhat resembled a wart, there being no raw surface, and consequently, no secretion from it. Its surface was smooth, as before, and elevated abruptly—the hardened base remained. Caustic had been applied to it twice or three times. The ring round the margin of the cornea was very distinct. The iris itself was but little altered in colour, and exhibited no deposit. Calomel gr. ij. Opii. gr. ss. M. 2dis horis.

6th. Pain and redness of conjunctiva having increased, leeches were applied.

9th. Gums and mouth sore ; iris restored to colour and moveable ; vascularity of conjunctiva much less. Has not taken the medicine since the night before last, when she first felt her mouth becoming sore ; she then left it off of her own accord. The sore of the mamma not so elevated, but its surface appears raw. Ordered to resume the calomel and opium.

A few days after this period we again saw the woman. Very slight remains of the iritis, as well as of the sore on the breast, were then apparent. All the particulars of the case being considered together with the occurrence of iritis, little doubt was now entertained of the specific nature of the sore.

This, then, we believe to be an instance wherein a primary syphilitic ulcer had its origin from the matter of secondary lues coming in contact with a sound and healthy skin—it being in a situation not

obnoxious to that of a primary ulcer or chancre.

II. INFLAMMATION OF CELLULAR COAT OF VENA SAPHENA MAJOR.

John Anderson, æt. 11, admitted January 24, 1899, under Mr. Travers. He has an irritable sore, in chief superficial, at the base of the fifth toe, on the dorsal surface. This has existed for a fortnight, being produced by wearing a tight shoe, and has been much aggravated by daily exercise. About the middle of metatarsus, an inflamed line, an inch broad, commences, and extends upwards to the groin, along the course of the saphena major. The redness is shining, transparent, and indicates the inflammation to be of a passive kind; it is more conspicuous, for a short space, in the middle of the leg; it then becomes less so for a few inches above and below the knee, but is very distinct in the thigh. The lower tier of inguinal glands slightly enlarged and tender. The inflamed line is hardened, and has a knotted feel. The boy's aspect is unhealthy, and evinces debility, otherwise his constitution is surprisingly little disturbed. He describes the pain as severe, but we do not think this arises entirely from the action going on in the inflamed parts. He has experienced no chills, and has slept well at night. He was placed immediately in bed, with the limb supported on pillows. Twenty leeches to be applied along the part, and a dose of jalap and calomel.

25th. Has passed a tranquil night—redness and tenderness in the course of the vein considerably diminished. Bowels open. Rep. hirudines.

27th. The redness remains only over the tibia—the parts are not softer, but in the groin and throughout the entire line, formerly so well marked, the tenderness is sensibly lessened. The lobulated or knotted feel to the fingers is not so perceptible.

31st. Inflammation has progressively subsided—there is some tenderness still, and likewise induration in the course of the vein and at the groin.

Feb. 7th. Convalescent—hardness not removed.

11th. Presented; the affected part being a little harder than natural.

In Mr. Travers' opinion, the external coat
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of the vein was alone implicated, though, for obvious reasons, such could not be very distinct. In this case there was no œdema similar to that occurring in phlegmatia dolens.

XIV.

HÔPITAL ST. ANTOINE.

CURIOUS CASE OF MASKED AGUE.

A young female, aged 16 years, had had only two or three appearances of menstruation, and reported that she was subject to general malaise for many years. During the year preceding her entrance into the Hôpital St. Antoine, (on the 20th May, 1898,) the malady of which she complained assumed the intermittent type. The accessions were at first every three weeks—afterwards once a fortnight; but, during the last two months they occurred regularly every eighth day. The precursory phenomenon was a swelling of one hand, generally the right—but this precursor did not invariably take place. The swelling usually lasted two days, and, as this subsided, colick, head-ach, and fever supervened, lasting about 24 hours. The paroxysm came on with a violent rigor, of two or three hours' continuance, then fever, and, ultimately, perspiration. Occasionally the sweating stage did not take place. It was remarked that there was no thirst during the paroxysm; but it came on very urgently after the accession was over. Vomiting was a very common symptom during the attack, and the colicky pains, with head-ach, continued for two days after each. The epigastric region was very sensible and painful on pressure. The malady was watched during a month at the hospital, and four paroxysms were carefully noted. The sulphate of quinine was then administered, and stopped the complaint.—BIBLIOTHEQUE MEDICALE.

It is remarked that the complaint seemed to be hereditary in the family, as the mother

and five or six of the sisters and brothers were subject to it. We should suppose that the cause was rather in the place where they lived, than in any thing hereditary. It is an instance of one of the many anomalous forms which *ague* will assume, and by which it often eludes the vigilance of the practitioner.

Tinct. opii, ʒss. Syrupi, ʒss. M. capiat ʒss. tertia quaque horâ; habeat haustum anodynum horâ somni.

13th. Had a bad night; vomited; symptoms continue. Sumat pulv. digitalis, gr. j. omni horâ ad sextam vicem nisi supervenerit vomitus. R. Spt. ætheris nitrosi, ʒss. Syrupi ʒj. Aquæ font. ʒvj. M. capiat ʒij. ter in die.

XV.

EDINBURGH ROYAL INFIRMARY.

I. A CASE OF EXTRAORDINARY HYPERTROPHY OF THE HEART.

Jane McLean, æt 90, admitted 13th May, 1829, under Dr. Duncan.

Symptoms on Admission. Has a frequent and severe cough, attended with a profuse watery expectoration, tinged with blood. The respiration becomes hurried and distressing, even to a sense of suffocation, when she inclines to the horizontal posture. The action of the heart is heard over a larger space of the surface of the chest than natural, and the pulsations are stronger than natural. Palpitations are excited by trifling causes, and are generally followed by a fit of coughing. Pulse 100, moderately full, rather resisting, and occasionally intermitting. Has severe head-ach, which is aggravated very much by coughing; the face is very pale; has general œdema; the bowels are open; the urine is scanty.

History of preceding Symptoms, &c. About two years ago had fever; after which, palpitations arose, and which palpitations have since re-appeared on any exertion. About two months ago the cough and difficulty of breathing commenced—since then, have continued to increase in severity. The œdema and blood in sputa were only noticed one month ago. She was in the infirmary last Winter, complaining of head-ach and palpitations, and was dismissed somewhat relieved.

Symptoms and Treatment after Admission, R. Antim. tartarizati gr. ij. Aquæ font. ʒviij.

14th. Sickness was produced by three powders; cough less troublesome; the urine scanty; pulse 100, full and regular. Sumat tinct. scillæ, guttas xij. ter dedie ex aqua font; habeat pil. hydrargyri j. omni mane, et intermittantur medicamenta heri prescripta. It is unnecessary to pursue the diurnal details. She lingered till the sixth June, when she expired.

Post-Mortem Examination. There is a general œdema, but not to any great degree. The lower part of the right side of the chest sounds duller than natural on percussion. On elevating the sternum and cartilages of the ribs, the heart is seen to occupy a much larger space than usual, reaching from about the second rib to between the seventh and eighth. In each side of the chest there is about ʒss. of serum, and in the abdomen about ʒss. iv. The diaphragm is thrust more into the abdomen than natural, and, consequently, so is the liver. The lower parts of the right lung are much diseased; being of a dusky red or brown colour, and perfectly hepatized; the other parts are not so much altered; for though they are firmer than natural, the areolar structure can still be recognized, and they crepitate on pressure. The left lung is in no particular so changed as the right lung; but is of a grayish white colour, approaching, according to Dr. Duncan, to the character of the gray hepatization; it is likewise more filled with serum than natural. The heart weighed 32 ozs. that is, 22 ozs. more than the ordinary weight; and it was seven inches in length and about five inches in breadth. The fibrous and loose portion of the bag of the pericardium is, in this case, in all places adherent to that thinner portion which closely invests the heart itself. This adhesion between the two layers of the pericardium is by means of a loose cellular tissue, which

is infiltrated with serum. The auriculo-ventricular valves are diseased; more especially the mitral valve, which is thickened, contracted, and has some calcareous deposition on it. The pulmonary veins are exceedingly small. The ascending, the transverse arch of, and the descending, aorta, are smaller in caliber, and have thinner coats than natural.

II. LARYNGITIS—TRACHEOTOMY.

Case 2. Mary Taylor, æt. 28, admitted May 23d, at 2, P. M. under Dr. Duncan.

Symptoms on Admission. Complaints of pain in the larynx and trachea, which is increased by external pressure. Inspiration is extremely difficult, causing pain in the larynx, and producing a loud croupy sound. Expiration is free; expectoration difficult; sputa scanty and viscid. She has a harsh and painful cough; and very great anxiety expressed in the countenance. Pulse 100, and smaller than natural. Skin is moist; bowels are open. Has a deep ulcer on the uvula, and a superficial one on the fauces.

History of preceding Symptoms, &c. The ulcers on the uvula and fauces have existed for seven months. At intervals since their appearance she has been seized with difficult deglutition, and inspiration likewise has at times been difficult in some degree, but never before the present attack has it been distressing. For the last fortnight she has had a sense of soreness about the fauces, and deglutition and inspiration, during the same period, have been painful in some degree; but the extreme difficulty of breathing under which she now labours, appeared only the day before her admission to the infirmary. It came on suddenly, and quickly became aggravated to its present intensity.

Symptoms and Treatment after Admission. In the evening the symptoms became more aggravated. Applicentur hirudines, xij.

faucibus externis et postea cataplasma, et R. Calomelanos, gr. iv Pulv. antimonalis, gr. vi. M. statim. sumendus.

24th. Inspiration is much more difficult and painful; and, during which, the soft parts above the clavicles are sucked in. She has slept none; head-ach is very distressing; expectoration difficult; pulse 100, rather small; tongue moist; bowels open; countenance anxious; face flushed; voice nearly lost. R. Sulph. cupri gr. v. Aq. font, ℥ij. solve et sumat statim; post emeticum bibat aquæ tepidæ, ℥j.; emetico finito admoveatur emplastr. epispasticum collo, et R. Hydr. submur. gr. x. Opii, gr. ij, M. fiant pilulæ vj. sumat duas omni bihorio.

25th. The dyspnoea was relieved for some time by the emetic, but has since returned. She sits almost upright in the bed; and inspiration is much more difficult, incomplete, and painful, than it was yesterday. The obstruction is referred by the patient distinctly to the glottis. The face is flushed; the eye-balls project; and there is almost perfect aphonia. The pulse intermitting. As it was evident that tracheotomy would give the only remaining chance of recovery to the patient, its performance was decided on, and immediately executed. *The operation.* Mr. Liston commenced by making a perpendicular cut of about an inch and a half in length through the integuments over the trachea, commencing below the cricoid cartilage; he then slit up two or three rings of the trachea, and introduced a curved tracheal tube of rather large caliber, which was fixed in its situation by means of tape passed through the rings at the external end of the instrument, and tied round the patient's neck. Instantaneous relief was obtained by the operation; for, after two or three convulsive expirations, (caused by some drops of blood entering the trachea from the wound,) she breathed with perfect ease. She got an anodyne at bed-hour, which was repeated for three successive nights. A very large quantity of mucus was expectorated for the first three days after the operation. The ulcers of the uvula and fauces have healed by the application of nitrate of silver; but with an almost complete destruction of the former appendage. During the process of cure a thick piece of bone came away, which some of the surgeons think to

be an ossified portion of the thyroid cartilage. A smaller tube has lately been substituted for the one first introduced; the voice is much restored, and it is hoped that the artificial opening may soon be dispensed with, and the breathing established through the natural passages.

Remarks. This case well exemplifies the utility of tracheotomy, when not long deferred, in cases of threatened suffocation from inflammation of the larynx. No irritation, no cough, no sense of choking, was, in this case, produced by the canula.

XVI.

WINCHESTER COUNTY HOSPITAL.

UNITED FRACTURE CURED BY THE SETON.*

The troublesome and frequently indomitable character of many cases of non-union of bone, renders any plan of treatment that promises to be even generally successful a desideratum of much importance. We believe that properly regulated pressure has been found the most useful in the long run, and Mr. Amesbury's apparatus effects this object better perhaps than any other which has hitherto been invented. But pressure, however and whenever applied, will sometimes, indeed not unfrequently, fail, and it then becomes useful to determine what other measure shall be had recourse to. Next to pressure we would place the seton in the scale of valuable methods of treatment, at least we conceive that published cases establish this opinion. It has often been productive of no sort of good, but in many instances, on the other hand, it has answered completely and effected a cure. Mr. Henry

Lyford has published an interesting example of the efficacy of the seton in our Provincial Cotemporary, and we think we shall do right by giving it a more extensive circulation in our columns, than the comparatively narrow range of a local journal will procure it.

The subject of the case was a boy, who broke his right thigh eleven months before his admission into hospital under Mr. Lyford. The fracture had been attended to by a surgeon in the usual mode, but had never united, although the dressings were continued up to the period of his application. On examination, an oblique fracture was discovered rather above the centre of the femur, where so much motion existed that the two ends of bone could readily be made to form an obtuse angle with each other. The foot and leg, which were oedematous, were much everted, and the broken limb an inch and a quarter permanently shorter than its fellow. The constitution appeared to be extremely languid, the appetite was bad, the bowels confined. A large blister was applied on each side of the thigh near the fracture, and strengthening diet, with a mercurial aperient, and the compound steel mixture, were prescribed, but although the general health was improved, no ossific union whatever took place. Accordingly, on the 12th day after his admission, Mr. L. introduced the seton in the following manner. An incision, an inch and a half in length, being made through the integuments in the middle of the thigh, at the inner edge of the rectus muscle, the subjacent parts were completely divided down to the fracture. A long round seton needle, armed with a piece of tape well oiled, was then introduced between the fractured extremities of the bone, and protruded behind the vastus externus, through the skin, at the outer and posterior part of the limb. No hæmorrhage whatever ensued, the wounds were dressed with adhesive plaster, and the patient placed on his back in bed, with the leg and thigh supported by the double-inclined plane. The wounds were dressed on the third day, and decoction of bark, in addition to the previous strengthening diet, was prescribed. All went on well till the 13th after the operation, when the patient was attacked with frequent rigors, considerable pain and swell-

* Prov. Med. Gaz. No. 1.

ing in the thigh, general febrile disturbance, and an erysipelatous blush around the wounds. The seton was withdrawn, and a poultice applied, and calomel, opium, and an aperient draught were given, with the effect of gradually removing the constitutional affection. A high degree of inflammation, however, attacked the extremities of the bone, and the slightest motion of the limb, or indeed of the body, produced the most excessive pain in the fracture. Perfect rest by means of the many-tailed bandage and splints, succeeded completely in arresting this, and, at the end of two months from the time of his admission, the patient was dismissed from the hospital cured. The limb was an inch and a quarter shorter than the other, which occasioned a limp in his gait.

XVII.

HÔTEL DIEU.

LIGATURE OF THE ARTERY BEYOND THE ANEURISMAL TUMOUR.*

We have no intention of re-arguing this question, nor taking up the discords and dissensions of which it has been the signal, if not a material cause. Throughout the whole of the discussions which must still be fresh in the memory of our readers, we saw no occasion to change the opinion we expressed at their very first blush. We believed then, and believe still, that the operation *ultra aneurysma* is applicable to the common carotid, and to that only, because no branches intervene between the site of the ligature and the sac; in other words, because the circulation is no longer kept up through the latter. This is the conclusion which reasoning, *à priori*, would and did lead us to adopt, and the *facts* that have hitherto occurred have not tended to disprove its truth. On this point, however, the opinions of the profession in this country are still unsettled, and we question whether all the cases of Mr. Wardrop have contributed here, where they are best ap-

preciated, to decide the matter either one way or other. In France, however, and indeed on the Continent generally, the garbled statements and noisy fanfaronade of a certain organ now almost defunct, made more impression than they did at home, and the brilliant issue of the late operations passed current through all the journals and salons. As usually happens, our foreign brethren conceived we were as much delighted as themselves, and have taken up the inquiry with the most furious zeal, just when we were beginning to view it in a sober and rational way. Dupuytren has recently performed the operation at the Hôtel Dieu, and the interest it seems to have excited in Paris, at least if we may judge by the medical press, has been of the most intense description. Certainly we know no more favourable circumstances for determining the real value of an operation, than those under which the present has been placed. Performed before hundreds of spectators of almost every European nation, by a surgeon of high and undoubted eminence, both the patient and the public have justice done them. Here there can be no concealment, no smothering of the facts, no sneaking equivocations, nor reckless mis-statements. What is done can be seen, what follows *must* be known; science is not vitiated, nor the profession (to use a mild term) deceived; in short, it is as fairly as one case can be so, an *experimentum crucis*. We shall proceed, without further preamble, to the details, which assume, on the foregoing accounts, a great and permanent importance.

The patient, a country labourer, forty years of age, and of good constitution, was admitted into the Hôtel Dieu on the 28th of May of the present year. Five months previously he began to suffer from pain in the whole of the right upper extremity, accompanied, after some time, by difficulty of motion, feebleness, and swelling. The next thing observed was pain just above the right clavicle, where a tumour, the size of a nut, appeared, and gradually augmented in volume, whilst the weakness and swelling of the arm increased *pari passu*. The patient now consulted a medical man, who

* Journal Hebdom. No. 38.

informed him that he laboured under aneurism of the subclavian, and recommended perfect rest, and the application of ice to the tumour. These means, however, were productive of no good effect, for the disease became aggravated every day, and the following was the state upon admission. The tumour was as large as one's fist, and extended from the median line of the neck and sterno-clavicular joint, to near the scapula-humeral articulation. Mounting upwards towards the trapezius muscle, it formed a considerable prominence, and extended backwards even into the supra-spinatus fossa. The pulsations which corresponded with those of the heart, were extensive and powerful; the integuments were sound, the whole of the limb much swollen and œdematous, and affected with severe shooting pains, but neither altered in temperature or hue. No tumour was distinctly perceived beneath the clavicle, but M. Sanson, on close examination, imagined that he felt in that direction a prolongation of the aneurism, an idea which subsequently proved to be correct. The common carotid could be traced unaffected with disease. The general health of the patient was good, there was scarcely any cough, and the respiration was unaffected. The heart, when examined by auscultation, presented no unusual bruit, but the pulsation of the ventricles, was strong and sonorous, and heard over a pretty considerable space. It was difficult to determine the precise portion of the subclavian artery affected with the disease, or to pronounce that it had or had not extended to the innominate.

The patient was twice bled and compresses dipped in a lotion of acetate of lead were applied to the tumour, which was also covered with a bladder of pounded ice. The disease, however, perceptibly increased, especially in the direction backwards, and it now became a very serious question, what remained for the surgeon to attempt? The Valsalvan treatment promised little, and indeed, in M. Dupuytren's experience, it had often been productive of ill instead of good. The uncertain extent of the disease towards the heart, and the probable implication of

the innominate, were powerful reasons against applying a ligature in this situation; and indeed, had the innominate been proved to be sound, M. Dupuytren did not think the event of the two operations on that vessel, already performed by Mott and Graef, sufficiently favourable to justify a third attempt. In short, it was agreed on to apply the ligature beyond the tumour, and on the 12th of June the operation was performed in the theatre of the Hôtel Dieu, before a great number of spectators.

The patient was placed upon his back in a bed, properly supported by assistants, and the right arm was separated from the side. An incision through the skin and cellular membrane, about three inches long, was then commenced near the sterno-clavicular articulation, and carried about two fingers' breadth below the clavicle in the direction of the fibres of the deltoid, and a little transversely to those of the pectoralis major. The innermost fibres of the former muscle and those of the latter were next divided, and the different layers of fascia and cellular membrane in front of the axillary artery were also cut through. The pectoralis minor was divided for about three quarters of its breadth, and the axillary vein, which was greatly swollen, and almost entirely obscured the artery, was exposed throughout its whole extent. The separation of the artery and vein was only accomplished by a cautious and slow dissection, when a silk ligature was passed round the former. In order to ascertain that all was right, M. Dupuytren took hold of the ligature at either end, and by lifting it up, and pressing at the same time the artery on it with his finger, was able to arrest or permit at pleasure the circulation through the limb. This, of course, decided that the artery had been found, and the absence of all pain also showing that no nerve was included, the ligature was tied at once. At the instant that this was done, M. Sanson, who had his finger placed upon the tumour, perceived that about twenty irregular and precipitate pulsations occurred all at once, after which they resumed their former ratio. The wound was lightly

dressed, and compresses dipped in a very weak solution of the acetate of lead were continued as a local application, together with the bag of pounded ice overall. During the operation, no less than 14 vessels were secured with ligatures, and M. Dupuytren ascertained by examination with his finger, that M. Sanson had been right in thinking that a portion of the aneurism extended down underneath the clavicle.

In the course of the day the patient experienced dyspnoea and general malaise, for which he was bled from the arm, till a syncope of short duration was procured. On the 13th, the tumour had perceptibly diminished in size, but the pulsations were the same, and the limb was in statu quo. Demulcents and anodynes were ordered, and the patient took half a grain of the acetate of lead in distilled water. On the third day after the operation the patient was doing well, but the tumour, though "notably" diminished in size, *pulsated as strongly and superficially as ever*. Thus matters went till the 17th, (fifth day), when the patient was restless, and the tumour was much disturbed by painful attacks of cough; the pulse too was strong and quick. M. Dupuytren prescribed a bleeding from the arm, but in the middle of the day it was found that the dressings were stained with scarlet blood, though the point of the wound from which the hæmorrhage proceeded could not be discovered. The wound was washed with cold water and the bleeding ceased. Venesection, however, was again employed. The blood lost scarce amounted to five or six ounces, and M. Dupuytren imagined that it might proceed from laceration of that portion of the aneurism which extended beneath the clavicle.

The patient passed the night of the 17th well, and all went on favourably till the 19th, when the bottom of the wound appeared tumid, as if the aneurismal tumour was extended in that direction. The patient had been bled on the 18th, and he was bled again to-day; the pulsations in the aneurism still continued unabated. On the morning of the 20th, little alteration was perceived—the swelling of the limb was much the same, and its tempera-

ture unaffected—the debility, as it had been since the 17th, considerable. Towards evening he complained of general malaise, swooning fits succeeded, and he died in the course of the night, without presenting any other remarkable symptom.

Dissection. The right arm was livid, engorged, traversed with numerous dark veins and its cuticle raised in several places. This condition had, according to the report of the "interne," occurred since the patient's death.

The cavities of the head and abdomen presented nothing unusual.

The first and second ribs upon which the tumour rested were worn, and in one point completely destroyed. Both pleural cavities contained about six or eight ounces of deep-coloured sero-sanguineous effusion. The heart was pale, flabby, and dilated in its cavities, with rather attenuated walls. That portion of the pleura covering the posterior part of the right lung was inflamed, with thin and recent false membranes on its surface, and the lung itself was in several points hepatized. The aorta, from its origin to three fingers' breadth above the point where it passes between the crura of the diaphragm, was so enormously dilated, as to admit the fist of a child, ten years of age to be placed in it. Its coats were very thick, and the inner was of livid red colour, and presented a number of "fungosities," and erosions, through which protruded spiculae of osseous matter. The innominate was sound, but double its natural size.

The aneurismal tumour was exclusively confined to the subclavian, which it occupied, from its origin to its termination. It extended beneath the clavicle and behind the axillary artery, which was flattened over at this point; and passed backwards to the supra spinatus fossa. No rupture could be found in it to explain the hæmorrhage, which appears to have greatly surprised those concerned. The axillary artery was not divided by the ligature, and the vein and vessels, though greatly compressed by the tumour, had been fairly avoided. One of the latter

was confounded with the parietes of the tumour, which were partly formed at the expense of the neighbouring parts.

So much for this important case, the result of which was looked to with a beating heart, no doubt, by several individuals in this country. The interest it appears to have excited in France was extreme, and the ridiculous things which were said about it, just what one expects from our living neighbours. In the *Lancette Française*, a kind of imitation of our own precious exotic, the operation is described in much the same style as a modern Russian bulletin, and the astounding genius of M. Dupuytren is celebrated with all the arts of pen and ink!

"Il opère," says the French Editor "*il réussit* Honneur au génie," &c. &c. Of the operation, unfortunately, no one can entertain a doubt, but its *success* may be rather a matter of dispute, as the patient died on the eighth day after its performance. The Editor of the Parisian *Lancet*, like his very respectable confrère in England, will have found, by this time, that your thick and thin panegyrists, like your thick and thin libellers, occasionally cut a foolish figure.

Dropping, however, these remarks, let us look to the case itself. It appears to us that, *a priori*, it makes against the operation, because the patient died much more rapidly after its performance, than, in all probability, he would have done without it. Some of the French Journalists, led away by enthusiasm, or blinded by the reputed *amour propre* of their nation, having boldly asserted, that the operation itself was not the cause of death. We shall not waste words by arguing that question, for any unprejudiced man, on perusing the details of the case, must inevitably arrive at the opposite conclusion. An operation, however, may prove fatal, and yet, under the circumstances, be perfectly justifiable and proper for all that. Let us see if the present was in this predicament. The subclavian artery presents an aneurismal tumour—the axillary trunk is tied—secondary hæmorrhage occurs, though to no great amount—and, on the eighth day the patient sinks. On dissec-

tion the aneurism is found to be confined to the subclavian itself, but the innominate is greatly dilated, the aorta even more so, and extensively diseased through the whole of its thoracic portion, and the heart affected with passive aneurism. With such a combination of serious diseases of the vascular system, the fatal result is little to be wondered at. M. Dupuytren, however, is not discouraged, for he is made to say, that if another case presented itself, he would operate again in a similar way. For our own parts we see little encouragement to proceed, in any one part of this case. Not only did the operation prove the cause of death, but it failed, so far as in the trifling interval between its performance and the fatal issue it could do so, in abating the disease. The tumour, we are told, was diminished in size, but it pulsated as strongly as ever to the last; and in the notes of the dissection, not so much as a syllable is said of any deposition of recent coagulum within it. The account, indeed, of this part of the examination is singularly bad, for no mention is made of the nature of the aneurism, whether false or true, circumstances of considerable moment in forming an estimate of the case.*

We need scarcely tell our readers that we have deprecated through good and through bad report, the application of this method of operating to cases of aneurism of the subclavian and innominate. We objected to it first upon principle, we object to it now from experience. Aneurisms of the innominate and its two great branches at their origin, are seldom or never uncombined with disease of the aorta and heart, and what can an operation promise in such a state of things but disastrous and fatal results! DILATATIONS of these vessels are so common in elderly persons, especially females, that we question whether they shorten existence in any material degree. At all events, we have seen them remain for many years,

* In some of the other journals, we find it stated that the aneurism was a false one, formed by the destruction, more or less, of the arterial tunics.

and produce no more inconveniences at the end of that period than at the beginning. The proper case for the "operation of Brador," is *aneurism* of the common carotid, for no vessels arise from that trunk between the ligature and sac. To expect, however, that success will follow this operation on the subclavian, when the circulation through the tumour is kept up by so many large branches, seems to us to be surgery run mad.

XVIII.

WESTMINSTER HOSPITAL.

CASE OF VIOLENT AND LONG-CONTINUED HEAD-ACHE, &c. DISAPPEARING AFTER ERYSIPELAS OF THE FACE.

Bridget Clarke, æt. 33, admitted June 20th, 1829, under Mr. Guthrie, says her husband infected her two years ago with the venereal disease, and she had a discharge from the vagina and sore throat, as also a small ulcer on the back of her neck. Sometime afterwards her right eye became inflamed and she lost the sight of it. Immediately after this she had a swelling on her forehead, which was opened and from time to time, portions of bone came away. There is a cavity now marking the place. She has a small ulcer on her ankle, but without any syphilitic character. Her face is considerably swelled about the eyes, and she says she suffers excessively from a violent pain shooting through her forehead to the back of her head. She complains of loss of power in the right arm, and great pain in both upper extremities, more particularly at the elbows. Her right leg is affected in nearly the same way. The knee-joint is particularly painful. She was ordered on her admission the compound decoction of sarsaparilla with one grain of the oxy muriate of mercury to each dose.

June 29th. She does not feel in any degree relieved by her medicine. Pulse 123—tongue rather dry, slightly furred, and yellow in the centre.

R Infus Rhei, ʒviij.

Tinct. Card. ʒij.

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Carb. Ammon. ʒj. ℥. ft. Mist.
et cap. cochl. ij. ter in die.

July 2d. There is an erysipelatous flush about the upper part of the face. She complains of violent pain in her head and stomach. Bowels not freely opened—tongue furred and dry.

R Infus Sennæ, ʒviij.

Pulv. Jalapæ, ʒij.

Potassæ Supertart.

Sodæ Subcarb. aa ʒj. ℥. et
cap. ʒiss. 2dis. horis.

July 3d.—a. m. Her bowels have been freely acted upon. The erysipelas is worse, and she has continued vomiting of a slimy fluid of a dark green colour. Pulse scarcely perceptible. She is ordered two ounces of brandy to be taken slightly diluted in small doses.

July 4th. Her pulse is less languid and her face less swelled and inflamed. She feels altogether much better. She had ʒiij. of brandy, and ʒij. of laudanum during the night. Vomiting much less frequent.

R Mist. Camph. ʒiss.

Conf. Aromat. gr. x.

Ammon. Subcarb. gr. v. ℥. ft.
haust, bis terve in die sumend.

July 5th. She continues much the same. Complaints of great pain in her head and stomach, bowels rather confined.—To continue small doses of brandy.

R Hydr. Submur. gr. iv.

Pulv. Jalapæ, c. ʒss.

Pulv. Aromat. gr. iv. ft. pulv.
st. sumend.

July 8th. She has continued improving, and has lost the pain in her head.

July 15th. Dismissed quite well—all pain in her head and limbs having entirely disappeared.

XIX.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

Several cases for operation of various kinds have occurred in this hospital during the last month: three for entropium; two for the removal of the anterior part of the eyeball; five for cataract, and one for artificial.

pupil. The following for congenital cataract is the most deserving of attention, as the case had been considered irremediable ; indeed Mr Guthrie in deciding on an operation declared, that he did so, in order to give the child every chance that surgery afforded, satisfied that no evil would ensue if the operations should not succeed. The result has, however been successful, and very gratifying to all who have witnessed the difference in the appearance of the child since it has been made to see. At first it had but an indistinct idea of the form and distances of things, but it is rapidly acquiring that knowledge which is only to be obtained by the sense of feeling and by time.

Mary Check, aged four and a half years, living at 52, Praed Street, Paddington, was admitted April 4th, 1829. The child was blind, and had been so from her birth, being scarcely able to distinguish when it was daylight. There was a cataract in the right eye with the iris adhering to it ; the pupil nearly closed, and only dilatible in a trifling degree by the belladonna. In the left eye there was also cataract with adhesions of the iris, the pupil was, however, more regular, and could be considerably dilated. The iris in both eyes looks rough and irregular, as if it had been the subject of inflammation. The mother says she has shown it to several gentlemen who had said there was nothing to be done for its relief.

May 28th. The pupils being dilated as much as possible, the following operations were performed. An artificial pupil was first made in the right eye, by dividing the iris in the centre ; the lens and capsule were then separated as much as possible from their adhesions to the iris, and broken up. The cataract in the left eye, after being detached from the iris, was depressed.—A drop of the solution of belladonna was applied to each eye immediately after the operation, and this has been continued twice a day since. The pieces of lens are now rapidly dissolving, and the child begins to see very well. The inflammation which followed the operation was very trifling, and was completely reduced by cupping on the left temple to four ounces.

In the following case the existence of cataract in both eyes was not doubted, and the woman was sent up from the North of Scotland to undergo the operation.

Ann Barclay, aged 39, admitted April 23, 1829, being almost blind. Says that she has lost the sight of the right eye for a twelve-month, and that for a month previously she suffered from pains in the head, and a sense of heaviness over the brow, for which she was bled without any relief ;—blindness ensued a fortnight after she first perceived any impairment of vision. Three months back the left eye began to be affected similarly to the right ; there was a cloudy appearance with black spots continually before her which prevented her seeing objects distinctly, even at a very short distance.—This dimness has at the present time increased so as to cause blindness. She now complains of severe pains over her brow, and in her head, menstruation had been obstructed two years before the right eye was attacked, and is now very irregular ; the lenses of both eyes appear muddy, and some gentlemen even thought that cataract existed ; the iris acts freely but does not look very healthy. She was bled to 16 ounces, and ordered to take two pills composed of equal parts of blue pill and gamboge.

May 4th. Thinks she sees rather better ; still complains of a sense of weight over the brow.

Cucur. C. ad ʒviij.

7th. Sees much better with the left eye, and can distinguish light from darkness with the left ; pain in the head much relieved.

Cucur. C. ad ʒviij.

Rep. Pil. Hyd. cum Camb.

Since then she has been cupped five times ; ten or twelve ounces of blood having been taken each time ; blisters have been frequently applied behind her ears, and to the nape of her neck, and she has continued to take the pills regularly. She can now see to walk by herself tolerably well, and to distinguish persons accurately if the light is not too strong : the pains in the head and brow return occasionally : to continue the pills.

XX.

HOPITAL DES ENFANS.

COLLECTIONS OF PUS IN THE CAVITIES OF THE HEART.*

How much has been done in the investigation of diseases of the heart since the times immediately preceding that of Corvisart we need not stop to inform our readers. That celebrated physician, and the immortal Laennec, have conferred a degree of scientific accuracy on our diagnostic and pathological acquaintance with the morbid alterations of the organ, of which they appeared to be scarcely susceptible. In the ruder days of medicine the heart was always the chosen spot for monstrous diseases and incredible appearances, most of which have vanished before the subdued but steady light of modern discovery. There are still, however, affections of the organ which we do not understand, and are therefore apt to view with scepticism, if not with absolute distrust: of such a nature, are two cases reported from the Hôpital des Enfants, by M. Maréchal, interne of that institution.

CASE 1. *Paraplegia—Inflammation of the Lungs—Hypertrophy with Dilatation of the Heart—Malformation of the Right Ventricle—Purulent Deposit in the Left.*

F. Clementine, 14 years of age, of good constitution, but who had not yet menstruated, entered the hospital on the 31st of January, 1828, with almost perfect paraplegia. Caustic issues to the loins and warm vapour douches proving unsuccessful, M. Guersent administered the nux vomica in the form of lavement. The remedy proved of considerable service, and the dose was raised to five grains and a half, when symptoms of gastro-entérite supervened, and its use was abandoned. The symptoms in question subsided under moderate antiphlogistic regimen, but the paraplegia gradually returned, and the patient was soon in the

same state as when she was first received in the hospital.

About the month of May, she was seized again with pain in the abdomen, fever, headach, nausea, and diarrhoea, together with cough, and much mucous expectoration. Local bleedings were employed without any great effect, but the symptoms were not productive of alarm until after a violent mental emotion, when they assumed an extremely dangerous aspect. The pulse became rapid and extremely weak, the expression of the countenance anxious and altered, the cough was harassing, painful, and attended with a continual sense of suffocation—the nausea was converted into frequent vomiting of dark-coloured matters—the diarrhoea gave way to obstinate constipation with violent pain, sometimes in the epigastric, sometimes in the hypogastric region—the surface of the body was cold—the left foot red, and extremely painful. The application of external warmth, with derivatives and narcotics, was resorted to in vain and the symptoms continued unabated for two days, when a copious alvine evacuation procured a temporary calm. They quickly, however, returned with augmented violence, especially the coldness of the lower extremities and imminent sense of suffocation. In a paroxysm of the latter the patient expired at 7, a. m. of the 1st of June.

Dissection. The contents of the cranium were perfectly sound. The spine presented a lateral curvature, but exercised no compression on the medulla, which was free from disease, as were also its membranes. The bronchial glands were large, and the principal divisions of the bronchi were deeply reddened, and filled with a frothy bloody fluid, resembling the expectoration during the two last days of the patient's life. On the left side of the chest were some old adhesions of the pleura, and the apex of that lung presented a tuberculous excavation, surrounded by a hardened mass, in part hepatized, and in part infiltrated with tubercles. The lower lobe was much gorged, and in its centre were several nuclei of hepatization. The right lung was also gorged with blood, and crepitated little throughout.

* Journ. Hebdomad. No. 25.

The heart was very large, measuring five

inches in length from base to apex, and four inches at its greatest breadth. This enlargement depended not only on dilatation of the cavities, but thickening of the parietes; in other words, on hypertrophy with dilatation. The left ventricle particularly showed this alteration, being more than doubled in the size of its cavity, and presenting columnæ carneæ as large as the little finger of an adult. The hypertrophy of the walls of the ventricle was greatest at the base, the apex being thin and weak. The inferior half of the ventricle was filled by a round, white, fluctuating mass, containing in its centre a grayish-red liquid, of the consistence of cream, around a sort of nucleus marked with whitish streaks. The mass in question was soft, lacerable, and adhering slightly to the columnæ carneæ, between which it sent prolongations. The rest of the ventricular cavity contained several loose and dark coagula. The aortic opening was so narrow as scarcely to receive the extremity of the fore-finger, and the artery itself was of very small calibre. The left auricle was diminutive. The right ventricle was only dilated at its upper part, which was filled by black and soft coagula; across its middle was a transverse band, partitioning its cavity into two; this septum, which does not appear to have been a complete one, was three lines in breadth, and its extremities were continuous with the columnæ carneæ. The right auricle was much distended and filled with black coagulated blood.

The mucous membrane of the stomach and intestines was reddened throughout its whole extent. Small rounded tubercles, the size of peas, were deposited in the cortical substance of the kidneys.

CASE 2. Hepatization of one Lung—Pus in the Cavities of the Heart—Ulcer in the Intestines, &c.

Marguerite Menjaud, ten years of age, of weak constitution, was admitted into the Hôpital des Enfants on the 28th of August, 1828, with stupor, prostration, and other symptoms of severe fever. She had only been ill some days before her admission, and at the end of a month the parents removed her from the house, although she

was far from convalescent. In another month, however, they brought her back, stating that the child had suffered from cough and diarrhœa, which had been much worse for the last four days, during which there had been vomiting and palpitations at the heart. In the course of a week, which elapsed between the patient's re-admission, and her death, the following symptoms were observed. Pulse not frequent, but extremely small—pulsations of the heart very violent, unaccompanied with any particular *bruit*, but perceptible in the epigastric region, and heard over the whole extent of the thorax—cough constant—sputa viscid, glutinous, and yellow—dull sound on percussion behind and on the right side—absence of respiration, and “*souffle tubaire*” in the same points—slight tremor of the voice—decubitus on the right side—nausea—diarrhœa—and pain over the whole extent of the abdomen. Such were the symptoms observed in the short space of time that elapsed before the little patient died.

Dissection. The substance of the brain was extremely firm. The bronchial glands on the right side were softened, and infiltrated in part with tuberculous matter; on the left they were merely enlarged and red. The two upper lobes of the right lung were crepitant throughout, and contained some gray, semi-transparent granules. The inferior lobe was completely hepatized, and contained above, some small tubercular masses: and below, a tubercle the size of a pigeon's egg, and softened in its centre. The right pleural cavity contained some greenish, rather turbid liquid, and the pleura pulmonalis was covered by a soft false membrane. The right side of the chest was unaffected.

The volume of the heart was at least doubled from the equal dilatation of the two ventricles, without appreciable augmentation of the thickness of their walls. Both ventricles were filled with black clots, “beneath which were seen three purulent collections. One was on the left side, lying on the inter-ventricular septum at about its middle; the others were on the right. On both sides they presented the same charac-

ters, being about the volume of a small nut, white externally, in contact with the coagula and columnæ carneæ, and sending prolongations into the intervals between the last. Each pouch in the interior contained a fluid, having the consistence of cream, of a dirty yellow colour, and entirely escaping on wounding the pouch. The latter was about a third of a line in thickness, of dull white colour, slightly rugous, and easily broken.

The mesenteric glands had small tuberculous points in their centre. The mucous membrane of the stomach was softened and wasted in parts. Above the ileo-cæcal valve, was a lenticular ulceration of the small intestine. The mucous membrane of the valve, the cæcum, and the ascending colon, were uniformly red. The spleen presented in its texture a number of solid tubercular deposits. The same were discovered in the liver, containing in their centre a greenish liquid, resembling in all respects the bile.

These cases may afford matter for some consideration and more dispute. Waving on this occasion all other points, we must dwell for a moment on what was discovered in the heart. Abscess in the centre of that organ, though a somewhat startling kind of announcement, has yet been alluded to by authors. Mr. Wardrop, in his edition of Baillie's *Morbid Anatomy*, declares that he has seen "a preparation of a polypus in the left ventricle, in the centre of which was a distinct abscess;" and Mr. J. Stewart relates a case in the *Edinburgh Medical and Surgical Journal* for 1817, in which highly vascular polypi were discovered in the right auricle, and either ventricle. We think, then, that taking these facts, and especially that of Mr. Wardrop, in connexion with the two now reported from the *Hôpital des Enfants*, little doubt can remain, that either purulent matter, or something so like it as completely to deceive the best informed men, has been found in coagula or polypi lodged in the cavities of the heart. To this conclusion we must either yield our undivided assent, or believe that Mr. Wardrop, and the medical officers of the *Hôpital des Enfants*, have been themselves misled, or

wilfully misled their brethren. The existence of pus is, however, the least of the difficulty; its mode of formation is the rub. Are we to suppose that it is produced in the centre of a polypus, that is to say, in a clot of unorganized matter, by the same sort of process as in organized parts of the living body; in other words, that it is the product of inflammation? Our reason, or it may be our prejudice, forbids the supposition. There were no other marks of inflammation present, no lymph, no injection of vessels, and the symptoms during life differed so materially in the only two cases of which we have given an account, as to disprove, to our minds, the idea of its existence.

Whoever has examined many polypi of the heart must have noticed that they frequently vary in their consistence. The central part is occasionally softer, and yellower or paler in colour than the external, and that to a very considerable degree. It may readily be imagined that such a change may proceed even farther, and instead of mere softening, that actual pus, or something very like it, may be formed, independently of all cognizable inflammation, or of any thing akin to such a process. Pus is a product of the blood, and we see no good reason against its formation, under peculiar circumstances, from its matrix, by other means than by inflammatory action. At all events, it is not only more safe, but more philosophical, to conclude that the purulent fluid found in these cases was the result of some peculiar decomposition or change in the clot itself, than of inflammation resembling that in other parts. Analogy is against the latter supposition, probability in favour of the former.

The reporter of the present cases believes that the pus was formed during life. Without ripping up the ancient disputes respecting the ante-mortem or post-mortem origin of polypi, we are certainly inclined to differ from the reporter. If the purulent matter was produced before death, as he supposes, then the coagula must have been so too, which is contrary to the opinion at present universally held upon the subject.

Miscellaneous.

XXI.

REMARKS ON A PECULIAR CLASS OF DISEASES, RESEMBLING INFLAMMATION OF THE PLEURA, PERITONEUM, AND OTHER PARTS, WHICH WOULD NOT BEAR DEPLETION, AND WERE CURED BY CALOMEL AND OPIUM. By Mr. GEORGE NEWSTEAD.

We solicit the attention of our readers to the following statement. It will be read with interest, and probably with advantage, by those who unsheath the lancet the moment that pain is felt in abdomen or chest. There has been some peculiar constitution of the air, or rather of the earth, during the last few years, which has induced a host of anomalous diseases, imitating inflammatory affections, and leading to most injurious practice. Such practical facts as the following are very valuable.—*Ed.*

"A number of cases have occurred in my practice, during the last three or four years, which, with all the external characters of active inflammation, have not been relieved by bleeding, and, in fact, could not bear it to any great extent. The form chiefly assumed by the disease, when I first observed it, was that of pleuritis. Cold chills or shivering—uneasiness in the back and limbs, and frequently vomiting, were succeeded by very acute pain in the side. The tongue had the appearance exhibited in typhus mitior—the pulse was sometimes accelerated, but very often was not disturbed in the beginning—the secretion of urine was remarkably scanty, very high-coloured, and deposited a thick sediment. It sometimes terminated in three or four days with profuse sweats, and sometimes in a week or ten days by expectoration, tinged often with blood. The

pain was so urgent, and the breathing so obstructed, that I did not hesitate to use the lancet; but the first bleeding generally put me upon my guard. I was astonished at the small quantity which commonly flowed before syncope was produced, and also at the slight relief of pain, even where larger abstractions could be borne. Cases like peritonitis began to occur, and I then found, that whether the patient complained of the chest or abdomen, the pain was not confined to one part. Upon examining those complaining of the chest, there was great tenderness to the *touch* there, (a circumstance I never remarked in inflammation of the lungs or pleura) and not only there, but upon the abdomen and very often down the back; and those who said the pain was in the abdomen were affected, in like manner, by pressure on the chest and back, as well as the belly. In some, even the arms and thighs were affected; and whatever part was touched, they shrunk like the subject of acute rheumatism upon handling an inflamed joint. This diffused pain upon pressure, and the diminished secretion of urine, I fixed upon as the characteristic symptoms of the disease. Although the region of the kidney was usually pointed out as the seat of the most acute pain in the abdominal disease, and the secretion of urine was so much disordered, there was not that frequency of making water, and pain in voiding small quantities, which mark nephritis. The state of the bowels was various—frequently diarrhoea came on with green stools, or a discharge of bloody mucus; but, as calomel was freely given, I attributed these symptoms to its use. One young man, however, before any medicine was given, had frequent discharges from the bowels of a thin bloody serum, without tenesmus, and totally different from any thing dysenteric. I observed some, where the chest was chiefly complained of, spit up the same kind of serum, like bloody water. The stomach was often irritable throughout the abdominal disorder, and a green fluid was occasionally discharged. I felt an awful responsibility at first, when I dared to treat this complaint without, or with very little depletion; for patients themselves, identifying what they felt with

what they had heard of inflammation, would ask to be bled, but I was alarmed by the exhaustion I had seen follow, and I never, except in two cases, ventured upon more than one bleeding, trusting afterwards to leeches, a dozen at a time. My reliance was upon opium and calomel, or mercurial frictions. I was partly encouraged to withhold the lancet by the state of the pulse, which was often not above 80 and natural to the feel, when the chest, back, and abdomen could not be touched without agony, and even the weight of the bed-clothes was irksome; for although I am aware that fatal inflammation of the bowels may exist without an accelerated pulse, I fancy that, commonly, it is when it proceeds from some mechanical obstruction, and that in pure enteritis or peritonitis, there must be a quick pulse, though the feel may be variable. The pulse did not often continue in this state—it generally got to be 100 or upwards after two or three days, when the febrile disorder, which seemed to me to modify and give a peculiar character to the inflammatory symptoms, had time to develop itself. My cautious practice has been successful. Out of a number of persons afflicted in this way, I cannot say how many, but I can readily bring 40 to my memory, three died. Two of these had been freely bled, and the third was a woman seventy-eight years of age. Within the last month I have treated two cases successfully, even without leeches. I will give you a daily report of one of them.

"Jane Cotham, æt. 61. July 7, 1829. Attacked suddenly after tea this afternoon with excruciating pain all over the abdomen and vomiting. Eight o'clock, p. m. Complains of great pain in the abdomen, which is very much increased upon pressure—does not mention pain elsewhere; but, upon examination, the whole of the left side of the chest, as high as the axilla, and the back, are as tender to the touch as the abdomen—pain came on suddenly, but she has felt chilly and not very well all day—has been uneasy and stiff in her back and limbs two or three days—has never been subject to any spasmodic affection—pulse 72, with a sinking feel—tongue pretty nat-

ural—bowels moved both yesterday and today: Warm bath—two grains of opium immediately. Pulv. ipecac. c. gr. x. Hydrarg. submr. gr. ij. cum dosi mist. salin. 4tis horis postea. Ol. ricini, ʒj. primo mane Rub the parts affected, as much as can be borne, with camphorated oil.

"July 8th, 10 o'clock, a.m. Is easier. The pain on pressure continues, however, particularly acute on the left side of the chest, and the right side of the abdomen—cannot take a full inspiration—has no cough—urine said to be very little in quantity—no stool—has not yet taken the oil—pulse 72 without any sinking—tongue furred—ordered to take the oil and a black draught every four hours after until the bowels are opened. Eight o'clock, p.m. Opening medicine has not operated—does not complain much when she is still, but the whole of the abdomen is exquisitely tender to the touch, also both sides of the chest as high as the arm-pits—can bear pressure now upon the back—pulse 65—tongue a little moister—urine in very small quantity, but nothing particular in its appearance—has vomited after taking an opening draught. July 9th. Has been purged freely—does not complain of pain—can bear pressure tolerably well upon the abdomen, excepting the right side, which is still tender—has a little tenderness on the right side of the chest, but shrinks from the slightest touch on the left side—pulse 86—tongue loaded with a moist fur in the middle—evidently febrile action—has continued the calomel and comp. powder of ipecac. Is easier—has slept well—bears pressure on the abdomen without pain, but it feels hard, and as if the muscles were spasmodically contracted—some soreness to the touch all over the chest. Pulse 80—gentle diaphoresis—urine exceedingly scanty, depositing a thick sediment—tongue rather improving—dry and foul in the middle—bowels open—has vomited repeatedly.

"July 11th. Severe gripings—constant efforts to stool, but evacuates only small quantities of very bloody mucus—has passed, however, during the night, a large quantity of dark green feculent matter,

mixed with scybala—no pain on pressing the abdomen—a little still on touching the left side of the chest—chalk mixture, with tinct. opii; three grains of opium for a suppository.

"July 12th. The griping and tenesmus abated after a dose or two of the mixture—returned this morning with some discharge of blood—used the suppository, and has been quite easy since—no pain on pressure—gums swelled and tender—pulse 100—urine still very scanty. Continue chalk mixture—to take $\mathfrak{ss}$. ol. ricini in the morning.

"July 13th. Has had an easy night—castor oil has produced three good motions—mouth very sore—pulse 86—tongue beginning to clean—left off taking medicine.

"July 19th. Has been quite free from pain—bowels regular—fast regaining her former health.

"Two puerperal women have been severely attacked by the disease. One had two dozen leeches, and the other only one dozen very ineffective ones. Calomel and opium were given, and the bowels were opened once or twice with ol. ricini, combined with ol. terebinth. $\mathfrak{ss}$. Both recovered."

Remarks. It will hardly be contended that the above were cases of genuine inflammation. They were pleurodyne, and enteralgia, rather than pleuritis and enteritis. How far these complaints are allied to the aguish or periodical affections, now so very prevalent, may be a question. As Howden, in East Yorkshire, is situated near the banks of the Ouse, there is probably a source of malaria in that district, which may help to account for the causes of the diseases above described. We exhort our brethren to be strictly on their guard against excessive and indiscriminate depletion during the present reigning constitution.—Ed.

XXII.

OBSERVATIONS ON THE USE OF THE ERGOT OF RYE. By Mr. DAVIS, Surgeon, Pershore.

In a short paper published in a recent Number of the MIDLAND REPORTER, we find

some observations by Mr. Davis on the ergot, which we shall lay before our readers. He remarks that the ergot has strong claims to our attention, its powers being *sui generis*, and really wonderful. "Under favourable circumstances, it will bring on and end a labour in an hour, which might have gone on for days, thus saving the practitioner much harassing anxiety, as well as rescuing the most amiable and interesting portion of our species from much mental distress and acute and unnecessary suffering, and in all human probability, in many instances, from an untimely grave." But Mr. Davis is far from recommending the ergot upon all occasions. He thinks its administration requires great caution, and that it is likely to do incalculable mischief when injudiciously given.

"1. It ought rarely to be given in first cases.

"2. It ought not to be given if the pelvis be not capacious.

"3. It ought not to be given unless the parts be well dilated.

"4. It ought chiefly to be given in cases where the labor is unusually tedious, in consequence of want of action in the uterus.

"5. In many cases of hæmorrhage during parturition, and in retention of the placenta.

"If the parts be properly dilated and lubricated, and if the uterus be acting feebly and inefficiently, one dose of ergot will, I am fully persuaded, in nine cases out of ten, end the labour satisfactorily within an hour. It would be highly improper to give it in cases of impaction; in any presentation, excepting a natural one, or where there is a want of proper proportion between the child's head and the pelvis of the mother; or where there exists any rigid contraction of the soft parts.

Mr. Davis has detailed six cases where the ergot was given with great advantage. In one case, it was a first labour, and the pains were dreadfully excruciating, and recurring with scarcely any intermission. Opium was repeatedly given without effect. The os uteri was dilated, but no advance was made. A single scruple of the ergot terminated the labour in an hour and a half.

XXIII.

SOME OBSERVATIONS ON CHOREA.

That chorea is only one of the thousand forms which hysteria assumes we have no doubt. But we suspect that one very important, and not very uncommon, feature of the complaint generally escapes the notice of the medical practitioner—or rather it is studiously concealed from his view. He sees plainly enough, the morbid movements of the muscles; but he knows not the train of disordered, sometimes frightful, ideas that are passing in the mind. In three successive cases of severe and long-continued chorea which lately came under our notice, the irregular and distressing muscular movements were but as a feather in the scale of suffering, when compared with the terrific images that sickened or overwhelmed the soul. These are often, or rather always, most carefully concealed. It was by mere accident that we discovered them in the first of the three cases; but by dint of persevering inquiry we wormed them out of the other two, though with the greatest difficulty. In all three, the mental impressions are pretty uniformly in proportion to the corporeal disorders. In all three, there were moral causes in early operation, and evidences of bodily derangement. But whether the moral produced the corporeal disorder, or the latter the former, we cannot discover. Certain it is, that the mental impressions always exasperate the choreal or hysterical phenomena—and that any increase of the bodily ailments (we mean of the chylipoietic derangements) invariably brings on the terrors of the mind. What these last are, we do not hold ourselves at liberty to say. They are various in kind and also in degree. Some of them are ludicrous—some ridiculous—but most of them are horrible or unnatural. In none of these three cases did the patients ever broach the subject of their mental maladies to even their nearest relations—nor, indeed, to their medical attendant, but they were drawn from them by repeated inquiry. This leads us to suspect that the mental phenomena much more frequently accompany chorea and hysteria than is commonly imagined.

The difficulty of curing the disease may be, in part, accounted for by this concealment of more than half the complaint—and by the misery of concealment itself. And even when we become acquainted with the secret grievance, we can only act through the medium of the body.

An interesting case of this disease has lately been stated in the Glasgow Journal by Dr. Harrower, which is worthy of notice. The patient was a slender and delicate girl, ten years of age, who had been three months affected with chorea before he saw her. The left side was principally affected.

“She cannot with the left hand take hold of any object without inducing a train of irregular involuntary motions. Even when the object is grasped for a moment, she is unable to retain it. The flexor and extensor muscles seem to act alternately, giving rise to many whimsical gestures. Appetite craving; tongue clean; bowels sluggish; evacuations not formed, and of a light brown colour; pulse frequent, weak and intermitting; body considerably emaciated. She tosses about in bed continually, frequently sitting up and turning her body as on a pivot in a semicircular manner. At times, the motion is confined to the head, which turns so quickly, that she actually seems to be looking in all directions at the same moment. Occasionally the extensor and flexor muscles of the body come into action. She continues sitting, throwing the body backwards on the bed and forwards on her knees, after which the paroxysms generally terminate by great exhaustion of strength. There is weeping, alternating with fits of involuntary laughter. Her hands are continually in motion, sometimes apparently endeavouring to lay hold of objects floating before her eyes, at other times pinching the bed clothes and even her own body, or her attendants. Her speech is very indistinct, with a tremulous motion of the tongue. She has slept none for the last eight days, except a few minutes at the termination of the paroxysms, when she appears to drop into a slumber

from exhaustion, but is generally roused by the recurrence of the fits. These are evidently aggravated by attempts to restrain her. Countenance vacant; pupils very much dilated and sluggish in their motions; vision dim; dulness of hearing; intellect much impaired. She has been unable to feed herself for some weeks, and has much difficulty in swallowing, the morsel being frequently ejected with considerable force from the mouth by the spasmodic contraction of the muscles of the pharynx. On examination, the spine was found tender along its whole course, particularly about the ninth and tenth dorsal vertebræ. When these were pressed pain was felt in the left hypochondriac region which was somewhat distended; and her mother had observed that she could not allow her clothes to be drawn so tight as usual. She had used no remedies except some laxatives."

A course of medicine, with the cold bath and dry friction, was prescribed, which was continued a fortnight without benefit. The evacuations were depraved; the involuntary motions continued to increase; there was pain of the occiput, difficulty of deglutition, loss of speech, ghastly countenance, fixed eyes, foaming of the mouth and grinding of the teeth. She became furious in the extreme, climbing with the agility of a monkey and getting many severe falls. There was no end to the variety of postures which she assumed and motions which she executed. She did not sleep, and was emaciating.

"I now ordered tartar-emetic ointment to be rubbed upon the scalp, two or three times a day, until a copious eruption should appear. From the furious and restless state of the patient, the difficulty of using friction was very great. Some time, therefore, elapsed before a crop of pustules was produced; but upon their appearance the most decided improvement became evident. She now slept for several hours with only occasional starting, the involuntary motions were greatly abated, the countenance lively, the pulse

full and soft, the skin, which formerly had been harsh and dry, was relaxed and moist, and the external senses were more alive to impressions. The pain of the occiput was gone, except what arose from the eruption, which was very great in this case, from her mother, disappointed by its not appearing so soon as was expected, having used the ointment too freely. Several small portions of the scalp sloughed. The ointment was the same (3j. to 3j.) which the late Dr. Monteath and Mr. Mackenzie generally used as a counter-irritant in the treatment of the different ophthalmiæ, &c. in the Eye Infirmary. From this period she rapidly improved, all the functions returning gradually to their healthy state. The discharge from the scalp was maintained for some time by the occasional application of a little of the ointment, and when it began to decrease, the spine was rubbed with a liniment of turpentine and camphor, to hasten the cure, and prevent the danger of relapse. In ten days after the appearance of the eruption, she could walk through the house with a firm step, and handle even the smallest object: the pupils became more and more lively in their motions; the cornitis was completely dissipated and the vision improved. I now discontinued my attendance, but ordered the occasional use of the cold affusion, followed by dry friction with a coarse towel, and some tonic medicines, which she was to continue although all the symptoms were gone. I saw her about three weeks ago in the best health. There had not been the slightest appearance of any relapse."

We shall not follow Dr. Harrower through the long chain of remarks which he makes, and which are principally copied from Good's Study of Medicine. We shall only advert to his opinion, that the brain is the seat of chorea. "A very strong proof that the brain is the actual seat of chorea is, that when it arises from causes more particularly affecting that organ, it is more difficult of removal than when the brain is only secondarily affected, in consequence of some other organ labouring under disease." There can be no doubt that the disease often originates in the mind; the body becoming secondarily affected. In most cases, however, we

find the alimentary canal greatly disordered, and to this we are obliged to direct our principal attention. In one of the three cases to which we have alluded, the slightest pressure on one particular part of the spine, or rather of the long muscles on one side of the spine, excited choreal movements in various parts of the body, and especially in one of the arms.

We have found a series of tartar-emetic plasters along the spine, together with purgatives, combined with the nitrate of silver, the most effectual plan of treatment. A grain of nitrate of silver, with five grains of the compound extract of colocynth, and two of the pilula hydrargyri, was given to one patient for several weeks, by which the alvine excretions were brought to a natural condition from the most vitiated state we have ever beheld. The power of walking increased as the secretions and excretions improved.

XXIV.

PECULIAR ODOROUS PRINCIPLE IN THE BLOOD OF MAN, DISTINGUISHING IT FROM THAT OF OTHER ANIMALS.

Such is the title of a Memoir published in the Annals of Public Health and Legal Medicine, by M. Barruel, "chef des Travaux Cliniques," to the Faculty of Medicine. He observes, that a medico-legal question not unfrequently arises respecting stains from blood on clothes. The chemist may pronounce that a stain is produced by blood, and not by any other colouring matter, but he cannot by possibility pretend to affirm whether that blood be or be not human. Our author had long been engaged in obtaining the colouring matter from the blood, by boiling that of bulls, coagulated with a great excess of tolerably concentrated sulphuric acid. In conducting the experiments he was constantly struck with the strong smell of the stall (*odeur de bouverie*) emitted, but thought very little on the subject, till an accident occurred that drew his attention more particularly to the inquiry.

An individual, after losing considerably at play, swallowed a large quantity of opium, with the view of self-destruction. M. Orfila was summoned, and as a copious bleeding had been practised, resolved to ascertain whether any traces of morphia existed in the blood. M. Barruel assisted, and the blood having first been coagulated in a *bain-marie*, it was triturated, without affording any peculiar odour. It was then boiled with a sufficient quantity of sulphuric acid and water, when there issued from the flask so intolerable an odour of human perspiration, that the operator was fairly obliged to make good his retreat for some seconds from the laboratory. It now struck our author that it might perhaps be possible to distinguish the human blood by this test from that of other animals, and accordingly he set to work, and ultimately arrived at the following conclusions.

1mo. The blood of each species of animal contains a principle peculiar to itself.

2do. This principle, which is highly volatile, has an odour like that of the perspiration, or cutaneous and pulmonary exhalation of the animal from which the blood is obtained.

3tio. This volatile principle is combined with the blood and not to be perceived as long as the combination obtains.

4to. When the combination ceases the odorous principle of the blood is volatilized, and it becomes not only possible, but absolutely easy to recognise the animal that furnished it.

5to. In every kind of animal this odorous principle is more intense in the male than in the female; and, moreover, the colour of the hair in the individual, is attended with differences in the odour.

6to. This principle is dissolved in the blood, so that it may be shewn not only in the blood, as a whole, but when deprived of fibrine, or in the serosity.

7mo. Of all the modes employed to liberate the principle in question, the sulphuric acid is the best.

In order to obtain the foregoing results, it is only necessary to pour some drops of blood, or serum into a glass, and throw

on it a slight excess of concentrated sulphuric acid (about a third or half the volume of the blood,) and stir it with a glass rod. The odour that arises, as was mentioned before, always resembles the sweat of the animal that supplies the blood. Detailed statements are appended respecting the odour from the blood of oxen, horses, sheep, &c, but as the above rule states the general fact, we need not particularize each animal in rotation. It became important to ascertain whether dried stains of blood upon linen would furnish any indication, and M. Barruel asserts, that provided the stain be of a certain size, it is easy to recognise the kind of blood, even after the lapse of more than fifteen days. The portion of linen stained must be cut off, placed in a glass vessel, and allowed to lie quietly in a small quantity of water for some time. When the spot is well soaked, the sulphuric acid is poured on it, and stirred with a glass rod as before. Our author is ignorant if after a greater length of time than fifteen days, satisfactory results could be obtained.

M. Barruel concludes with some hints to the *Juges d'Instruction*, and earnest recommendations to the profession to regulate their olfactory organs. If the present become an established mode of legal diagnosis, "smelling a savoury suit," will no longer be a figurative expression! Seriously, however, the facts above detailed are curious, if authentic. An experiment too to determine their accuracy would be easily made.

XXV.

MR. BATTLEY'S LIQUOR CINCHONÆ CORDIFOLIÆ.

In the first, but we hope not the last, number of Dr. FARRE'S *JOURNAL OF MORBID ANATOMY*, Mr. Battley has detailed some experiments which he lately made on the yellow bark. He appears to think that

he has now obtained a fluid or liquor, containing *all* the medicinal principles of the bark in substance, without the inert woody fibre—consequently a preparation superior to sulphate of quinine. This is such an important subject that we shall here give the series of experiments, and the results to which Mr. Battley has come since the original experiments were published in the journal above-mentioned.

"EXPERIMENTS ON THE CORTEX CINCHONÆ CORDIFOLIÆ.—Having recently been engaged in a course of experiments on yellow bark, with a view to a more correct and complete analysis of it than has yet fallen under my observation, I feel justified by the success of my labours, in submitting to the profession the following detail of my operations, for the two-fold purpose of inviting their attention, generally, to the importance of pharmaceutical analysis, as subservient to the improvement of the *materia medica*; and particularly to the very interesting results of my present investigation into the nature and properties of bark, the actual separation of its constituent principles, and their power of combination with other substances; all with reference to the ulterior investigation of the relative medicinal virtues of the several simples and compounds, that will successively pass under our review in the different stages of this analytical process.

"I.—*Maceration*.—Ten pounds (apothecaries weight) of fine flat yellow bark, having been macerated for five hours in several gallons of distilled water, at a temperature of 150° Fahr., the infusion was of a bright yellowish red colour, fragrant smell, and very bitter taste. When cooled to 110°, it became opaque, with a thick pellicle on its surface. On being exposed in the evaporating dish to a continued temperature of 150°, or thereabouts, when condensed to about a fourth of the original quantity, it began to deposit a dark tough substance, which gradually increased as evaporation proceeded, until the fluid approached the consistence of syrup, when the deposit was withdrawn, and the fluid suffered to cool to 110°. At this point it assumed the appearance, as if a quantity of milk had been diffused through it; and four or five pints

of distilled water being suddenly plunged into it, the whole became disturbed; and an immediate and copious precipitation ensued, of matter in the form of masses, at first tough and waxy to the feel, but readily yielding to the pressure of the hand, and when separated from the fluid, drying very quickly, and pulverizing almost spontaneously. The fluid, after this precipitation, was beautifully bright, very fragrant, and exceedingly bitter; and, being slowly condensed, formed a semi-opaque EXTRACT,

	lb.	oz.	dr.	gr.
The weight of which was	1	8	4	34
Ditto of deposit and precipitate together	0	4	0	30
Total	2	0	5	4

"The extract was next diffused in distilled water, and was most easily dissolved, forming a fine rich mixture, semi-transparent, of a beautiful yellow, bitter and aromatic. Heat (130°) being applied, and *dilute* sulphuric acid added to a degree of pungency, the mixture was much brightened: after some hours it was saturated with lime. The sulphate (which was of a bright yellow) being washed and dried, was submitted to boiling alcohol; and the spirit being evaporated, the result was a beautiful brown crystalline mass, strongly partaking both of the smell and flavor of bark. The combined matter of the deposit and precipitate was then placed in *sub-dilute* sulphuric acid. The solution was of a deep yellow, semi-transparent, and very bitter, but at the same time pleasant to the taste. This having been decanted, and more sub-dilute sulphuric acid added, and a gentle heat applied, the second solution was in all respects similar to the first. The two solutions being then mixed together, and saturated with lime, the sulphate (of a pale reddish brown) was treated like the last, and with nearly similar effect. The residuum of the deposit and precipitate was then dissolved in successive portions of *dilute* sulphuric acid, until it ceased to impart the least bitter or bark flavour, and the several solutions being mixed together, and saturated with lime, the sulphate (which was quite white)

was submitted to boiling alcohol, &c., precisely as the two former. At the last, the *insoluble* part of the deposit and precipitate being washed and dried,

	oz.	dr.	gr.
Weighed	1	5	54
The acid solutions together	2	2	40
having imbibed			
Total	4	0	34

This *insoluble* matter was then boiled in alcohol for twenty minutes. The spirit was both deeply tinged and flavoured. The residuum was again boiled in successive portions of alcohol, until all that was soluble was taken up; when the remaining insoluble part being washed and dried,

	oz.	dr.	gr.
Weighed	1	0	35
The spirituous solutions together	0	5	19
having imbibed			
Total	1	5	54

"These solutions were then mixed together, and deposited (when cold) a copious precipitate, which being exposed to *sub-dilute* sulphuric acid, instantly disappeared. The acid mixture being further diluted with water, and saturated with lime, the sulphate fell instantly to the bottom, leaving suspended a gelatinous matter, which gradually subsided, and remained upon the surface of the lime in the filter. The sulphate dried of a bright yellow, and was treated like all the former. The spirituous solutions, after parting with the precipitate mentioned above, were mixed with sulphuric acid to a pleasant sourness, and retained their transparency unaltered. The mixture was saturated with lime, and the sulphate (which dried of a deep red, tinged with yellow) was treated as before. The supernatant mixture was quite bright, of a deep port wine colour, and astringent to the taste. Three pints of distilled water being plunged into it, the whole colouring matter was instantly thrown down, and being collected and dried, weighed . . . 1dr. 28gr."

" 20 grains of this imparted	2½gr.
to sulphuric acid	
Ditto to boiling alcohol	11gr.

"II.—*Maceration*.—The whole process that has now been described, was repeated from beginning to end with the residual bark. It would be tedious and unnecessary to detail the operations at length, the results being all very similar to the first, agreeing perfectly in kind, and differing only in degree, inferior (as might have been expected) both in quality and quantity to those of the first series of experiments. The only difference observable in the second instance was, that a yellow, powdery efflorescence (1dr. 28gr.) floated on the surface of the watery infusion, and that there was little or no deposit during evaporation, till after the plunge of distilled water, when the precipitation was instant and copious, as before.

	oz.	dr.	gr.
Weight of Extract . . .	4	2	42
Ditto Precipitate . . .	2	3	12
Total	6	5	54

"III. and IV.—*Macerations*.—The residual bark was again macerated in distilled water, a third and a fourth time, with this only difference in the present case, that the two infusions being both extremely weak, were mixed together, and the compound operated upon in a manner precisely similar to I. and II., and with results still inferior to both in quality and quantity.

	oz.	dr.	gr.
Weight of Extract . . .	2	5	4
Ditto Precipitate . . .	0	7	0
Total	3	4	4

"V.—*Decoctions*.—The bark, after the four preceding macerations, was next boiled for many hours in several successive portions of distilled water. All the decoctions were mixed together, and condensed by evaporation to a state somewhat resembling mucilage in appearance, when after the plunge of distilled water, as in former experiments, precipitation ensued to the extent of—

	oz.	dr.	gr.
Extract obtained from the	0	5	32
remaining liquid	4	6	45
	5	4	17

"VI.—*Papin's Digester*.—The residual bark was then placed in distilled water in Papin's digester, and kept at a high temperature for several hours. The water was pressed off and evaporated. It had little, if any, flavour of bark, nor was the plunge of distilled water followed in this instance by any precipitation, as it was in all the former experiments. The extractive matter (wt. 3dr. 30gr.) was tough, of a dark colour, and an exceedingly disagreeable rough saltish taste. This being dissolved in cold water, formed a mucilaginous mixture of a dirty sickly brown colour, and without the least flavour of bark. Dilute sulphuric acid (to pleasant sourness) being added, the appearance remained unchanged; and the mixture being saturated with lime, and the sulphate (dirty looking) submitted to boiling alcohol, as in former experiments, there was no result of crystalline matter.

"VII.—*Acid Decoction*.—The remaining woody fibre having been thoroughly washed and dried, was (lastly) boiled for several hours in many gallons of distilled water mixed with sulphuric acid, and then left to macerate for fourteen days. This last decoction was *intensely bitter*, and what is yet more remarkable, the fibre itself, at the last possessed so much bitterness, that it was found scarcely possible to deprive it entirely of flavour, though repeatedly deluged with water during a whole day. The decoction having been saturated with lime, the sulphate was quite white, and the supernatant liquid slightly green. The sulphate was boiled in half a gallon of alcohol, and imparted more bitterness to the spirit than any of the preceding separations of lime had done. The spirit when condensed to four ounces, was slightly tinged with brown, and strongly flavoured; and sulphuric acid being added, till litmus paper indicated a trifling excess, and the mixture being set at rest, after some hours crystals began to form about the surface of the fluid, in contact with the vessel, of a much darker colour, but the same aromatic odour as the fluid; and when the process of crystallization had entirely ceased, the fluid was poured off, and was still *very bitter*, and slightly alkaline. Having been then neutralised

with the least drop of acid from the end of a glass rod, and no more crystals being seen to form, the fluid was evaporated to dryness, leaving a transparent brown substance resembling emetine, which quickly attracted moisture.

"VIII.—All the different results of these experiments, mentioned in order, have been arranged and deposited for the inspection of the curious, in the Museum of the Academy, London Ophthalmic Infirmary, Moorfields, where these experiments were first conducted, and where they will be again repeated, if such be the desire of the profession, for the verification of the particulars above described.

"I purposely forbear at this time to state the conclusions which I think may fairly be drawn from these experiments, or to explain more fully the particular views with which they were commenced; being impelled to this silence at present, partly, by my unwillingness to obtrude my opinions upon those, who are so well able to form their own conclusions from the facts before them; partly by my sincere wish and request to be favoured with the unbiassed judgments of others, in relation to all or any of the particulars that have been now presented to their notice; and lastly and above all, by my humble yet anxious hope, that the striking novelty and interest of my present communication, may have a tendency to excite increased attention to the labours of chemical analysis, to awaken a spirit of inquiry favourable to future research in matters of science, respecting which, much ignorance (and its usual effect, much deception) at present prevails, and thus ultimately to lead, by necessary consequence, to important improvements both in the practice of medicine and pharmacy.

"RICHARD BATTLE.

"Fore Street, April 24th, 1828."

"(July, 1829.) P. S. Since the date of the above, I have continued my experiments on yellow bark, on a large scale and in a variety of forms; and have thus been enabled to verify the former results,

and to confirm to my own satisfaction, both the principles upon which those experiments were founded, and the conclusions which I am disposed to draw from them. The issue of my investigation into this important subject, is briefly this: Analysis has failed in its attempts to discover wherein the peculiar and essential principles of bark reside; and chemistry can as yet boast no preparation of this invaluable medicine, which, combining *all* its active properties, can fairly claim to be received, or can be received with confidence, as an efficient representative of this powerful agent. The boasted efficacy of the sulphate of quinine might from the very nature of the compound, have been reasonably doubted, even had success more uniformly attended its adoption in medical practice; but the repeated instances of its failure, recorded by experience, are sufficient to abate our confidence in its virtues, and to evince the want of a still more efficient preparation.

"To supply this desideratum in pharmacy, I invite the attention of the medical department to a new preparation, which I have succeeded in obtaining, by a process similar to that of the *Liquor Opii Sedativus* and which I propose to designate by the name of '*Liquor Cinchonæ Cordifolix*,' being a concentration of all the essential properties (*with the aroma*) of bark, and proving of equal efficacy with the exhibition of bark in substance. It has been submitted to the test of experience by the highest medical authorities in London, and always with eminent success; and I think myself justified, by the numerous and decisive testimonies in its favour, in submitting it with confidence to the notice of the profession, as a valuable production of pharmaceutical art, and an important addition to the *Materia Medica*.

"N. B. A similar process has been tried with various other drugs, which are amongst the most useful instruments of medicine, such as Aloes, Rhubarb, Senna, Sarsa, &c. and in all cases with equal success; and specimens of all these preparations (in similar form and under similar denominations, viz. *Liquor Sarsæ*, &c.) may be seen at the Laboratory of the

London Ophthalmic Infirmary, or at my private Laboratory, Fore Street, where the operations are continuous, and open to the inspection of the professional public.

ished her strength, and caused considerable loss of flesh. She had been bled—had taken sulphate of quinine, and various other medicines, without the least effect. Of late years, the duration of these attacks has varied from three to seven months every year. The attack over, she regains her embonpoint and strength, and appears as if she had never been ailing.

XXVI.

TWO REMARKABLE CASES OF INTERMITTENT APHONIA. By MESSRS. RENNES and OLLIVIER.

Case 1. The case is related by M. Rennes, Professor of Medicine at Strasbourg. The patient was a married lady, aged 46 years, who resided in a healthy part of the country, and had never experienced any material illness. This female was attacked annually, from the age of 33 years, with aphonia. These attacks were abrupt, and came on at noon, unaccompanied, at first, with any local or general uneasiness. The loss of voice was sudden and complete, and lasted till midnight of the same day, when speech returned in the same rapid manner in which it was lost. This occurred every day for about three weeks, and then ceased. Three of these accessions, each of a fortnight or three weeks' duration, took place in the course of the first year, 1812, and the same course obtained for a few years afterwards. In 1819, the periodicity became more regular. Each year, in the month of February, the approach of the malady was announced, in the morning, by wandering pains, shiverings, and horripilations. Exactly at mid-day the voice became extinct, without any affection of the pulse, any sense of constriction about the throat—but only a sense of tightness and malaise in the epigastric region. She would go to bed at nine o'clock, and awake quite well—to go through the same process the succeeding day. Sometimes, however, there were accompanying febrile symptoms, head-ach, &c. but these were rare. She had no perspiration. Nevertheless these attacks dimin-

Case 2. This is entitled by M. Ollivier an intermittent aphonia, of 30 years standing, always cured (for a time) by venesection. Maria Louisa Giron, midwife at the Hôtel Dieu of Angers, aged 44 years, at the time she came under observation, 1818, of nervous and sanguineous temperament, had menstruated regularly from the age of 15 till that of 18, when she had a profuse menorrhagia, occasioned by some violent mental emotions. About this period she became affected for the first time, and without any evident cause, with complete aphonia, which lasted several days. From this time the complaint came on at irregular intervals—sometimes several times in the month—sometimes with intervals of many months. She had once an immunity of a whole year. There was no apparent disturbance of the constitution at the periods of attack. They commenced with a sense of irritation in the throat, which gradually increased till the voice was totally lost, when the irritation always subsided. During the period of the attack, the patient felt a sense of oppression about the region of the heart, and of heat ascending in currents to the head. In all other respects she was well, and went about her avocations as usual. From the age of 15 years up to that of 44 years, the attacks of aphonia have always presented the same phenomena; but latterly that menstruation has ceased, the intervals between the accessions are longer. Various remedies, chiefly of the anti-spasmodic and tonic kind, had been employed; without making the slightest impression on the malady. At length blood-letting was tried—and scarcely had an ounce of blood flowed from a vein when the voice became restored. The same remedy has invariably produced the same effect, in every subsequent attack of the aphonia. Leeches gave the same relief, by the time that

an ounce or two of blood were abstracted. M. Ollivier himself was witness many times of this extraordinary efficacy of bleeding. The patient felt as if a load were removed from about her heart whenever the blood flowed, and then the voice was restored.

The above cases are very curious—but especially the latter, in a therapeutical point of view. The remedy is worthy of trial in cases of aphonia. In respect to the first case, it is said by M. Rennes that the patient inhabited a place where the “air was good, and generally salutary”—but this place we find to be, “*sa maison de campagne situé dans le Périgord, au milieu des bois.*” Now a house pitched in the midst of woods, must be one where there was very probably a plentiful supply of malaria, or vegeto-animal emanations; and we cannot but consider the case, after all, as one belonging to the ancient and extensive family of the Agues.

Archives.

XXVII.

ON SPASM OR CRAMP OF THE STOMACH. By DR. MACFARLANE.

We are fully convinced that some of the sudden and unexplained deaths which we so often hear of, are occasioned by the complaint at the head of this paper, though overlooked by the great majority of systematic writers. If we can judge by the painful evidence of our own senses or the descriptions which patients sometimes draw of their own feelings, this cramp of the stomach is one of the most dreadful species of suffering, while it lasts, to which humanity is exposed. Fortunately it is of short duration, when violent in degree. Life indeed is incompatible with any long duration of the spasm. But in these cases, the complaint is by no means confined to the stomach. We are convinced that the principal seat of the spasm is the *diaphragm*, and that this location, or, at all events, participation in the complaint, occasions the dreadful difficulty, or rather the dread of breathing,

which characterises the higher grades of gastric cramp. The complaint is quite a different thing from gastralgia, or dyspepsia—though dyspeptic symptoms are often the forerunners or accompaniments of the spasms. Dr. Macfarlane has published an interesting paper on this subject in our Glasgow contemporary, for May, 1829, of which we shall take some notice here. The following is the Doctor's concise description of the attack.

“When spasm affects the stomach, the morbid excitement is communicated through the medium of the nerves to the muscular tissue, inducing the most acute pain, with a feeling of rigid contraction, violent twisting or tearing in the epigastrium, soon followed by painful and interrupted breathing, difficult articulation, pallid countenance, small, hurried, and contracted pulse, and occasionally with coldness of the extremities, and rigid contraction of the recti abdominis and gastrocnemii muscles. Such symptoms will, in general, present themselves during a well-marked paroxysm of this disease.”

“The complaint, in dyspeptic subjects, is generally called forth by eating cold or indigestible substances, and often goes off without attaining much violence. But gastro-diaphragmatic spasm not seldom occurs where there has been no previous stomach-complaint; and where the general health has been merely deranged by confinement, sedentary employment, or the depressing passions, or great fatigue. We shall glance at some of the cases which Dr. M. has adduced as examples of this painful malady.

Case 1. This was a man, about 40 years of age, who had suffered from long imprisonment in Glasgow Jail, and was suddenly seized with spasm in the stomach. He complained of pain in the epigastrium darting to the left false ribs and umbilicus. The abdominal muscles in these parts felt rigid, and strong pressure afforded relief. He tossed about in great agony, pressing the epigastrium with his clenched fist—his face was pale, anxious, and covered with perspiration—pulse quick and small

—pain so acute as to impede his utterance. A drachm of sulphuric ether, with 50 drops of laudanum, removed the spasm in ten minutes. Dr. M. has often prescribed this formula in similar cases with manifest advantage, but sometimes a repetition of the dose is necessary.

"In severe forms of the disease, the patient usually complains of a sensation of rigid contraction or drawing together in the epigastric region, occasioned by the inordinate contraction of the muscular coat of the stomach, and occasionally producing a hard circumscribed tumour perceptible to touch. When, however, the abdominal muscles participate in the spasm, the tension and inequality of surface produced by the morbid contraction of the recti abdominis, effectually prevent the discovery of this tumour. The diaphragm, it is presumed, very soon sympathizes with this state of the stomach, and becomes also spasmodically affected, as the short, interrupted, and highly distressed respiration, and the difficult articulation evidently show. Indeed, every person who has seen a violent attack of this complaint, must have observed the change in the respiration which takes place at the height of the paroxysm; the difficulty, and often the impossibility of performing inspiration and expiration, in an unobstructed manner, and the half suppressed cries or moans which the patient utters, apparently occasioned by the rigidly contracted diaphragm, remaining as an almost immoveable partition between the thorax and abdomen. If the hand is applied either to the thorax or epigastrium, we can seldom discover the alternate elevations and depressions of these parts, indicative of a natural state of breathing."

Case 2. Our author was called late at night to a gentleman who had been taken suddenly ill. He complained of excruciating pain in the centre of the epigastrium—his face was pallid and contracted—his expression wild and remarkably altered in physiognomy—extremities cold—pulse 130 and feeble—utterance very difficult on account of the pain. A full dose

of ether and opium was given, and warm fomentations were applied to the epigastrium. He experienced relief for ten minutes; but the pain and spasms returned with increased intensity. His cries for relief were incessant—the epigastrium became tense and prominent—and pressure rather aggravated his sufferings. Another dose of opium was given with ammonia; but no good effects followed. Dr. Brown was added in consultation. The breathing had become laborious—he vomited some of the medicine, which appeared as if tinged with blood, and the same coloured fluid was squirted from the mouth and nostrils. He still pointed to the stomach as the seat of pain. The body was cold, the pulse fluttering. He expired before midnight, that is, in less than an hour from the commencement of medical assistance, and in about eight hours from the beginning of the pain. Unfortunately the body was not permitted to be opened, and therefore the cause of death is problematical. The Doctor imagines that the stomach was lacerated during the violence of the spasm. We are inclined to think that either an ulcer had existed previously in the stomach, which gave way at this time, or that an aneurism had burst, and produced the fatal event. We once witnessed nearly a similar train of symptoms produced by the bursting of an aneurism within the chest, and destroying life in twelve hours.

Case 3. A poor weaver, aged 22 years, was suddenly seized, at 8 o'clock in the evening, (Feb. 26th,) with excruciating pain at the pit of the stomach. He could scarcely articulate, and kept beating the epigastrium with his fist. A glass of whiskey was immediately given him, and this produced momentary relief; but in a few minutes the pain was as bad as ever. By 2 o'clock in the morning his agony was insupportable. He fainted; and soon afterwards threw up a dark brown fluid, like moss water. He was now visited by a surgeon who considered the disease to be spasm, and bled him, exhibiting afterwards a draught of valerian and assafoeti-

da, followed by a cathartic. At 3 o'clock, p. m. of the 27th February, Dr. Macfarlane saw him. He was lying on his back, with his legs drawn up, face pale, breathing quick, pulse feeble and 140, skin cold and clammy. He still complained of constant and severe pain in the epigastric region, and now diffused over the abdomen, rendering pressure intolerable. On the right side of the epigastrium there was a small tumour obscurely defined, and presenting indistinct fluctuation. He continued to vomit a dark coloured fluid, which was thrown from his mouth in a stream about the thickness of a quill, like water from a small syringe. He expired at 8 o'clock that evening, 24 hours from the commencement of his illness.

Dissection. The cavity of the abdomen contained several pints of a dark-coloured fluid, which had a strong smell of assa-fœtida. The stomach was sunk and almost empty, being nearly covered by a distended colon. On grasping it, fluid was seen to issue through a longitudinal opening in its anterior surface, between the greater and lesser curvatures, about three inches from the pylorus. Ligatures were passed around the termination of the œsophagus and commencement of the duodenum, and the stomach was carefully removed for more minute inspection. It contained an ounce of fluid and a little undigested food. Its coats were throughout of a natural thickness and appearance, except the peritoneal covering, which had several large patches of a bright red colour on its surface. The mucous tissue was neither inflamed, ulcerated, nor pulpy. The perforation readily admitted the finger, and extended from above downwards; its edges were carefully examined with a glass, and found slightly ragged, but without thickening, ulceration, or any other morbid appearance in the neighbouring textures. There was obviously no loss of substance where the opening existed, for its edges could be brought together without producing a folding, or puckering of the adjoining parts."

violence of the spasm, and that the peritoneal inflammation was a sequence. This conjecture is very probable.

Case 4. This case proves that the disease in question may prove fatal without leaving any cognizable trace in the dead body.

A lady, 28 years of age, was affected about twelve hours after her first confinement, with well-marked symptoms of spasm in the stomach, and that without any apparent cause.

"She had taken a little arrow-root prepared with water, and had slept for several hours, when she was suddenly awakened by excruciating pain in the region of the stomach. She struck this part with her hand, pressed upon it with all her force, and complained of great difficulty of breathing. The pulse was small and rapid, the skin cold and moist, and the countenance of a deadly paleness. Two draughts containing full doses of laudanum, æther, and volatile tincture of valerian, were exhibited, without effect; sinapisms, prepared with turpentine, were applied to the stomach and inferior extremities; and about half an hour before death, when the powers of life were rapidly sinking, brandy was freely given. On dissection, the only morbid appearance that could be discovered by the most accurate investigation, was general softening of the cerebellum, with vascular turgescence in the base of the brain."

We return our thanks to Dr. M. for the perusal of this interesting paper; and have only to add that, when the existence of spasm is once ascertained, the stimulants should not be sparingly administered. It is astonishing with what facility a spasmed stomach will bear diffusible stimuli and strong narcotics. The quantities then taken, with impunity, would in health, set up inflammation in that organ, and stupify the brain and nervous system.

Dr. M. is inclined to think that, in this case, the stomach was rent or torn by the

XXVIII.

ELEPHANTIASIS GRÆCORUM; AND CURIOUS AFFECTION OF THE LOWER EXTREMITY, RESEMBLING ELEPHANTIASIS ARABUM.*

The first case to which we shall advert is contained in a memoir on the Elephantiasis Græcorum, published by M. Cazenave in the Journal Hebdomadaire.

M. ———, 40 years of age, unmarried, had resided for 20 years in the French colonial islands, without ever having experienced ill health. In 1822 he contracted the itch, which was cured in the course of a few days by lotions of the "Eau de Mettemberg," and shortly afterwards he became affected with a gonorrhœa, for which he used no treatment. He had laboured under the latter fifteen days, when suddenly he found upon his cheeks and thighs a number of tubercles, as large as small nuts, prominent, irregular, red, and extremely sensible to the touch. Fifteen days after the appearance of this eruption he lost his clap, and the whole surface of the skin now became so exquisitely tender, that the slightest touch on any part produced a sensation similar to that which a blow upon the ulnar nerve at the elbow produces. By means of baths and a drink of sarsaparilla, the tubercles, and all the other features of the patient's complaint, were completely dispersed in the course of two months. It may be right to mention that, previous to the present attack, M. ——— had lived almost exclusively on salted pork.

A year had elapsed, and the patient perfectly retained his health, when, unfortunately for himself, he set off to attend a fête ten leagues from home. He drank there a quantity of warm wine, fatigued himself greatly, and returned on foot in the midst of "a pour of rain." He went to bed extremely ill, and next day the tu-

bercular eruption had re-appeared. Its progress was this time frightfully rapid, for in a very few days it had invaded, not merely the thighs, but the ears and the whole face, whilst the eye-brows and eyelashes had completely fallen off. A variety of medicines were employed in vain, and amongst other means, are enumerated *lizards*, which he swallowed alive! Four years passed away, but, instead of getting better, the malady got worse; the tubercles increased in number; the red colour gave way to a bronzed tint; and, finally, his sight began to fail him, when he made up his mind to repair from the Isle of France, where he was, to Paris, and entered the Hôpital St. Louis, on the 22d of August, 1827, under the care of M. Biett.

The face was of shining bronze colour, unequal on its surface, bloated, and covered with a crowd of tubercles separated from one another by sulci, varying in depth. These tubercles were nearly as large as nuts, soft and almost insensible. The ears were deformed; the lips enlarged and nodulated; the mucous membrane of the mouth of a bronze colour: the eye-brows and eye-lids gone; the inferior part of the forehead deeply grooved, whilst a large soft tubercle between each groove, hanging down before the eye, answered excellently well to the Greek designation of the *leonine disease*; the transparent corneæ surrounded by a circle like that in chemosis, but of bronze hue; the iris of the left eye adhering to the pupil, which was not sufficiently large to admit the introduction of a pin's head. The tubercles in the extremities were larger and less prominent than those on the face, and the subcutaneous cellular membrane was swollen and flabby. The prepuce was affected in a similar way, but the trunk, though partaking of the peculiar colour observed elsewhere, was otherwise free from the disease. There were constant attacks of diarrhœa rapidly succeeding one another, and tardily yielding to opiates and blisters to the ileo-cæcal region. Several slight attacks of erysipelas visited the face during his stay at the St. Louis, but this made very little or no alteration in the state of the complaint. On the 10th of November the patient left the hospital, no better than when he entered,

* Journ. Hebdomadaire, Nos. 30-33.

the diarrhœa having prevented the employment of any remedies directed to the elephantiasis. The man, it should be noticed, had not the least sexual desire.

In the course of six months, M. ——— returned to the St. Louis in a still worse state than before. The hands, which had been but slightly affected, were now very much so; the sight was almost totally destroyed; the voice was raucous and nearly inaudible; but the alimentary canal was improved in its condition, and M. Bielt determined on the exhibition of iodine. Five or ten drops of the tincture were given at first, and the dose augmented by degrees to twenty in a five-ounce mixture, whilst frictions with the ioduret of sulphur and lard, and vapour-baths were ordered in addition. During this treatment, which was pursued for the space of two months, there were more attacks of erysipelas of the face, one of them very severe and more than once the body became covered by small pustulous vesicles, which were spontaneously re-absorbed. Finally, there appeared large bullæ on the legs, and especially the knees, which looked as if the patient had been burnt, but were proved, by direct experiment, to depend upon the iodine. The patient appeared, on the whole, to be improving, when violent diarrhœa again supervened, and continued for three months, in spite of every endeavour to arrest it. Cough succeeded, and bloody expectoration, which, with other symptoms, and the indications furnished by the stethoscope, shewed the existence of pneumonia, under which the patient sank, on the 21st of March, 1829.

Sectio Cadaveris. The discoloration of the skin was singularly diminished, and, what is surprising, the tubercles had almost entirely disappeared. In the limbs, not only these, but the swelling were gone, and only a little dulness of tint remained, but the face was still preternaturally soft, though the insulated tubercles were gone. After maceration of the skin for several days, the epidermis was found, on dissection, to be thickened, and beneath it was an extremely vascular, and, indeed, erectile tissue, the density of which was greatest the farther from the surface, and of bronze-like colour. Beneath this was another tissue, hard, dense,

bronzed and solid, presenting several little cavities, containing transparent, or yellowish white concretions. Beneath this, again, was a thick adipo-cellular texture.

The brain was rather firm, a little injected at its surface, and presenting a slight congestion of the vessels at its base. The spinal marrow was in a similar state.

The larynx and bronchi were full of thick mucus. The internal membrane of the former was of bronze colour and unequal granular surface, besides which it was thickened, ulcerated in some parts, tumefied in others, and softened throughout. This alteration was particularly remarkable in the inferior chordæ vocales, in the sacculi laryngis, and inferior surface of the epiglottis, which was somewhat enlarged. The cellular membrane external to the mucous was thickened. The mucous membrane of the trachea and bronchi was red, soft, and thickened, which latter was the case, to a remarkable degree, with the external cellular tissue. Following the ramifications of the bronchi, the hypertrophy of all the tissues increased—a quantity of bloody fluid was effused into the pleuræ—and the characteristic marks of peripneumony were presented in the lungs, but not a tubercle in any point.

Some yellow serum existed in the pericardium, and the lining membrane of the great vessels was stained of vinous red colour by the blood, which was universally fluid.

The mucous membrane of the alimentary canal, especially of the stomach and large intestine, was of bronzed colour. The follicles at the base of the tongue and in the stomach were greatly developed, but unmixed with tubercular growths. At the great end of the stomach the mucous membrane was softened, at the pyloric it was the reverse—there were several ulcerations in the colon.

The kidneys, spleen, liver, were soft, voluminous, and gorged with blood, but free from any tubercles.

The optic nerves were sound—the con-

junctiva on the eye-ball and the eye-lid was thickened and deeply bronzed. The laminae of the cornea were thick and yellow; the aqueous humour scant and turbid; the capsule of the right lens opaque, but the lens itself quite healthy, whilst the contrary had taken place on the opposite side; the hyaloid membrane on both sides thick and opaque, and the vitreous humour itself rather muddy on the right; and, finally, the retinae were sound.

The testicles, the epididymes especially, the glans penis and the prepuce, were changed into a resisting, hard, dense, and lardaceous tissue, which crepitated when cut. The corpora cavernosa were exsanguined, and their fibrous septa enlarged. The bronzed yellow tint existed almost every where, even in the bones, but the muscles were exempt and of a bright red hue.

We have given the dissection thus minutely, because it is that of a disease whose rarity precludes our having many opportunities of learning its pathological characters, at least in this country. We fear, however, that here, as in all the diseases of the skin, morbid anatomy is of very little service. Not only does it lead to no sort of practical result, but it does not even throw any accurate light on the anatomical nature of the malady, at least so it seems, perhaps erroneously, to us. The history of the case and effects of the medicines prescribed, will be read with more interest by the English practitioner, than the notes of a patient and laborious dissection, because they are matters with which he may chance to be professionally interested. Therapeutics are pound, shillings and pence affairs, and, therefore, incomparably more important to John Bull than morbid anatomy, which is looked upon by many as a mere scientific bugbear! The disappearance of the disease, then, under the use of sarsaparilla, its sudden re-appearance after the fatigue and exposure to wet, and, lastly, the effects of iodine, are not unworthy of remark. The organic alteration of the genital organs satisfactorily accounts for the impotence during life, a fact which has given rise to much dispute amongst the writers on ele-

phantiasis. Altogether the case is well worthy a place in our columns, as well as the attention of our readers, and we assure the latter, that the memoir from which it is extracted is much more bulky than the form in which it is presented here.

The next case occurred at Leipsic, in the Hospital Saint Jacob, under the care of Professor Clark, and is detailed in a thesis published in that city, by M. R. F. A. Martini. Its history presents sufficient points of singularity to make it deserving of notice.

The patient was a weaver, Charles Hackell by name, ætatis 40, of bilious temperature, and father of five healthy children. When eight years of age, he was attacked, for the first time, with severe erysipelas of the right foot, which terminated in vesications, and then left the part in its natural state. In the course of a fortnight, a second attack of the same disease occurred in the same spot, and from this time till the fourteenth year of the patient's life, he had many such, at intervals of longer or shorter duration. At this time no change in the size of the foot had taken place, and Hackell could walk as well with that as with the other. Subsequently, however, each successive attack of erysipelas left a slight deposit behind it, till at length the new matter acquired a remarkable thickness.

The foot and leg are at present exactly the shape of the elephant's. The enlargement commences at the middle of the tibia, above which point the skin is glossy and of bright red colour, and dispersed over its surface are tubercles, the size of a pea, some of them as large as a small nut. The cellular tissue is perceptibly indurated, and gradually blends itself with a thick layer of adventitious scaly matter, fissured here and there, of a dirty earth colour and resembling the crust of bread. This morbid deposit extends on the dorsum of the foot to the very extremities of the toes, and the deep fissures at every joint, together with the excessive enlargement at all other points, combine to produce a very hideous appearance. The sole of the foot is entirely free from the deposit, and

at several points on its sides, the skin of the former is separated from it by a white line. The structure of the crust seems to consist of an aggregation of small processes, closely drawn together and dry upon their surface. It is evident, says the narrator, that they spring from the epidermis, because they can be separated from the subjacent parts without the least pain or a drop of blood. The patient experiences no pain in the part, nor any inconvenience, except from the weight of the foot. He is perfectly sensible to the least impression, or even the slightest tickling on the foot. Amongst all the means that have been tried in the treatment of the disease, compression alone has been productive of advantage. The frequency, however, of the return of erysipelas, and the severity of the pains attending it, having increased *pari passu* with the diminution of volume in the leg, the patient has been compelled to desist from bandaging, and at present employs no treatment whatever.

The author of the case, M. Martini, considers the case as one of erysipelas and nothing else, and denies its identity with elephantiasis. That it is not such a case as that which is first detailed in the present article, the tuberculous disease of the face, &c. in fact the elephantiasis of the Greeks, is very clear; but, as the reviewer in the *Journal Hebdomadaire* remarks, it is certainly an instance of the elephantiasis Arabum, or elephantiasis in the proper sense of the term. The reviewer in question, M. Cazenave, has seen it succeed the cicatrization of old ulcers at the Hôpital St. Louis, and Dr. Bouillaud has witnessed it after the obliteration of veins. That these were local causes for the disease is highly probable, but whether the erysipelas stood in the same relation to the complaint in the present instance, or was merely a symptom attendant upon it, would be very difficult indeed to determine.

It appears, from a notice in the *Hebdomadaire*, that another case of the disease has been published by M. Hosack, in a Thesis at Leipzig, like the former. We have not the details at hand, and if we

had, our limits would scarcely allow our making use of them, for

What so tedious as a thrice-told tale?

XXIX.

TARTRITE OF ANTIMONY EXTERNALLY APPLIED. By Dr. FONTANEILLES.

In a paper published in a recent number of our Parisian cotemporary, the *REVUE MEDICALE*, Dr. Fontaneilles assures us that, for a great many years past, he has employed a solution of tartrate of antimony, in the proportion of one drachm to the pint of warm water, to local inflammations of the skin and subjacent tissues, with very great success. He generally, however, exhibits antimony internally, at the same time, though not in the large doses recommended by Rassori, Tommasini, and others. For instance, he dissolves about three grains of the tartrate in a quart of lemonade or barley water, and gives this to the patient for common drink. It usually produces some nausea, or vomiting, with discharges from the bowels. In erysipelas, he applies the tepid solution, and repeats the application whenever the cloths get dry. In phlegmonous inflammation—in every kind of phlogosis, in short, except carbuncle, he employs the solution, with great advantage. The existence of wounds is no bar to the antimonial, and he takes no pains to prevent it getting into them. When the phlogosis is very intense, Dr. F. does not neglect local or even general depletion as auxiliary to the above plan. He applies this solution to the inflamed breasts of females, and avers that it rapidly dissipates the engorgements of those glands.

But it is not entirely to acute affections of the surface that he confines the antimonial solution. He uses it as a bath, local or general, in cases of pruritus, darts, and lumbago. In consequence of the homeopathic doctrine of Haneman, our author was induced to try the effects of a twelfth to a twentieth part of a grain

every half-hour or every hour, in some diseases; and though he does not consider this plan so efficacious as that of Rassori, especially in acute affections of the head and chest, yet he derived from it very evident advantages in diseases of the abdomen—particularly in fevers, and in what the followers of Broussais denominate gastro-enterites. We think the hint is worth acting upon, in cases of local inflammation, more especially in erysipelas.

rax—but not more than four ounces in the pericardium. The heart was enlarged and its substance thickened. The ascending aorta was dilated, and there was a disposition to ossification.

XXXI.

NITRATE OF SILVER.

The following observations on this powerful medicine were contained in a letter from Mr. Ceely, an intelligent surgeon in the country.

XXX.

PERFORATION OF THE INTESTINE.

The patient was an eminent banker, who did not abstain from his office till a day or two before his death. He was upwards of 70 years of age. The following very curious appearances presented themselves on examination after death.

On opening the cavity of the abdomen, it was discovered that the contents of the bowels had passed into it. On examining the intestines from the pylorus to the rectum, it was evident that recent inflammation had existed at various parts, but in general they were in a healthy state, until we arrived at the caput cæcum coli, which was thickened, and the whole gut from that portion was as enclosed in a case of organised coagulable lymph, with innumerable pouches, which appeared as if the colon in its natural state had escaped through the surrounding mass. On returning to examine the stomach, there was discovered near the pylorus a circular opening of about half an inch diameter externally, but on cutting into it, it was found that the inner and muscular coats of the stomach were destroyed to the extent of at least an inch—there was considerable thickness and hardness around the margin of what appeared to have been an ulcer, and through this opening the contents had escaped. There was a considerable quantity of fluid in the cavity of the abdomen—about four pints in the tho-

“In two cases of very painful digestion I used the nitrate for two months, and arrived at four-grain doses. One of the patients lived on gruel two months, and subsequently small portions of fat bacon for three more; and her perseverance has gained for her that health and comfort which she had not enjoyed for five years before. In numerous other cases I have derived infinite advantage from this sedative, conjoined with the plan of diet you have so ably advocated. I have never uninterruptedly continued the use of the nitrate beyond two months; nor have I ever seen any of its ill effects on the skin. I have found this article of great use, made into a pill with extract of poppy or hemlock, or any thing similar, and introduced up the rectum in the quantity of from one to three grains, twice or thrice a day, in that simple tenesmus supervening on active or protracted diarrhœa. Its effects are more decisive and more permanent than the direct sedatives usually employed.

“I have not long since had a successful case of delirium tremens in a female, in which 485 grains of extract of opium was taken in six days; and still more recently, in a more complicated and intermittent case of the disease, 13 grains of the acetate of morphia were taken in six hours, before sleep was procured. R. C.

CLINICAL REVIEW.

XXXII.

WORCESTER INFIRMARY.

ON THE USE OF THE STETHOSCOPE IN PULMONARY AFFECTIONS. By CHAS. HASTINGS, M. D.

Were auscultation in danger, we should have felt some alarm at the opening of Dr. Hastings's paper:—"Save me from my friends"—alluding to those who run mad after the stethoscope, or expect every thing from it, without the trouble of other modes of investigation. Those who do so are very inexperienced and very unwise. The diagnosis of diseases is the most difficult branch of our science, and he who expects to render it perfect and easy, even in diseases of the lungs, by the aid of the stethoscope, will be grievously disappointed. We are well aware that odium is daily brought upon this auxiliary by imprudent professors of stethoscopy in this country. But what remedy, in therapeutics, has not been abused on its first introduction into practice?

Dr. Hastings cannot except even Laennec, "from the imputation of attaching too much importance to the information to be derived from this source (auscultation). He obviously inclines to rest his dependence on the results to be derived from the use of auscultation and percussion, to the exclusion of the important aid to be procured from a diligent study of the symptoms." We think this last part of the sentence is too severe: for we nowhere in Laennec's work see any evidence of this conclusion of symptomatology. Turn to any section of that great pathologist's treatise—emphysema of the lungs, for example (being the first place we opened in the volume before us)—and we see that the author first describes the anatomical characters, in other words, the morbid anatomy of the disease—then the occasional causes—thirdly, the symptoms of the disease, independently of auscultation

—and, fourthly, the physical signs afforded by the stethoscope. This is the course generally pursued by Laennec, and what better course could be pursued? Where is the ground for accusing him of excluding symptomatology in such procedure? We agree, indeed with Dr. Hastings, that—

"If such a divorce of these helpmates to each other were ever to happen, the discovery of the stethoscope would become comparatively of no avail, for it is only by a proper consideration of the knowledge to be procured from each of these sources, that a correct judgment can be formed of obscure pulmonary affections."

It is true that Laennec may have been deceived in his opinion that, in pectoriloquism, he had discovered a "true pathognomonic sign" of phthisis pulmonalis. This is quite another question.

"Laennec," says our author, "considered that he had, in pectoriloquism, discovered a true pathognomonic sign of phthisis pulmonalis. The only sign to be regarded as certain. There can be no doubt of its being a sign of great importance, for this phenomenon is invariably observed when the excavated end of the instrument is applied over a cavity of the lungs communicating with the trachea by means of a bronchial ramification, and the person to whom it is applied, pronounces audibly a given number of syllables. Thus far, then, we may predicate with safety, that where pectoriloquism exists, there is a corresponding cavity in that part of the lungs; and also that pectoriloquism is a pathognomonic sign of phthisis, if the existence of an excavation in the lungs is necessarily accompanied by consumption; or if pulmonary consumption can never happen without the occurrence of a tubercular excavation: but I am prepared to argue that excavation of the lungs may exist without the co-exist-

* Midland Reporter, No. V. p. 235.

ence of phthisis; and also that tubercular phthisis very commonly happens, unattended by any excavation, and consequently that pectoriloquism is not a pathognomonic sign of pulmonary consumption.

"We may first inquire, does the existence of a tubercular excavation necessarily imply the co-existence of phthisis? That, in infinitely the greater number of persons thus affected, consumptive symptoms also occur, the history of this disease unfortunately, but too decidedly, testifies. But are there not, I would inquire, individuals in whom the existence of such a cavity is consistent with tolerable health. In whom, by length of time, the excavation is emptied of all tuberculous or purulent matter, and becomes lined with a smooth polished membrane? Such persons regain their flesh, and sometimes enjoy years of health, and consequently cannot be said to be affected with phthisis, although, if we consider pectoriloquism a certain sign of phthisis, they must be considered to be so. Laennec has himself described cases of this kind, and other authors have confirmed his observations."

In the first place we may observe, that Laennec merely gives it as his opinion, that *tuberculous* phthisis is the only kind of phthisis which we should admit, "unless, indeed, it were the *phthisis nervosa*, and the chronic catarrh simulating tuberculous phthisis." As to the impossibility of phthisis occurring without an excavation, Laennec has made no such assertion. On the contrary, he observes:—"When there exists a great number of tubercles, even very small ones, in the lungs, death will sometimes take place *before any of them has reached such a degree of softness as to have their contents discharged into the bronchia, and consequently to leave any ulcerous excavation.*" As to recovery after excavations, it does not prove that the disease was not tubercular phthisis, but only that the excavations will sometimes heal. We cannot, upon the whole, but think that Dr. Hastings has set up a man of straw himself, which any body could have knocked down with a feather.

Leaving these discussions aside, the cases which Dr. Hastings has published in this paper are interesting in themselves.

Case 1. This was a man, 70 years of age, who died in the Worcester Infirmary of ulceration of the pyloric orifice of the stomach. He said he had nearly died of consumption in his youth. On dissection, a tuberculous excavation, capable of holding a walnut, was found in the superior lobe of the right lung, lined with a polished membrane. There were several hard tubercular masses in the lungs generally.

Case 2. This was also an elderly person, who had, in early life, been subject to cough. She died of fever. In the left lung, there was a cavity, with a smooth polished lining, and some hard tuberculous masses dispersed through the lungs.

It was well known that dilated bronchial tubes will exhibit the same auscultic phenomena as excavations, and, consequently, the existence of pectoriloquism, *per se*, does not necessarily prove that the patient is affected with tubercular phthisis and excavations.

"It is also not very uncommon to meet with instances of consumption, where the disease is of much more rapid course, owing to the conjunction of inflammation of the cellular or bronchial tissue of the organ, with numberless miliary tubercles scattered throughout the lungs, and in some parts coalescing, and forming large tuberculous masses. In such instances, death often seizes its victim ere any excavation has formed, and of course before pectoriloquism can inform us of the tuberculous deposit. But although the cylinder, in such instances, does not offer us what Laennec states to be the certain sign, it is, under such circumstances, often exceedingly useful in pointing out that much mischief is progressing in the lungs. For the absence of the usual respiratory murmur in certain parts of the lungs, where it ought to exist, may justly lead us to pronounce, after sundry trials of the fact, that there exists some unnatural production in

the substance of the lungs. In this way, the attentive auscultator may be enabled to form an opinion of the probable termination of consumption in its more early stages, long before excavations are formed, or the symptoms manifest any severe lesion of this important viscus! That such knowledge is of the first consequence to the practical physician, no sensible man will, I presume, deny. It may, in some cases, by pointing out the necessity of early treatment, enable us to avert the fatal issue of a disease, whose ravages annually sweep off a large portion of the population of Great Britain. I am certainly, from some experience, decidedly of opinion, that if our treatment of tuberculous consumption were more early and assiduously applied, we should not so often have to deplore the inefficiency of our art in this dreadful malady."

The following case is adduced by our author as an instance of pulmonary consumption checked in its early stage, by appropriate treatment.

Case 3. A young female, aged 17, was received into the Worcester Infirmary in the month of September, affected with dyspnoea on slight exertion, and short dry cough. Pulse was 100 and small—tongue clean—bowels regular.

"By the stethoscope, the respiratory murmur was found to be puerile over the whole of the right side of the chest. On the left side, in several parts, it was puerile also, but towards the upper part of that side, there was a spot more than an inch square, in which no respiratory murmur could be heard. Repeated examination with the cylinder confirmed this result. I accordingly, comparing the information derived from auscultation with the general state of health, concluded, that a portion of the lung on that side, was rendered impermeable to air, by the deposition of tuberculous matter."

Dr. H. ordered a seton to be inserted over the part. She was bled, and took large quantities of decoction of sarsa, with Brandish's liquor potassæ, for a considerable time.

"It gave me much gratification to observe, that the plan succeeded in amending her general health. After remaining in the infirmary some time, she was discharged in tolerable health; but the respiratory murmur had not then returned in the spot before alluded to. I saw her two years afterwards, looking pretty well, but I had not an opportunity of examining whether there was still an absence of the respiratory murmur in the affected part."

No one will accuse us of undervaluing the benefits of auscultation; but we were not prepared for its powers in discriminating such a case as the one just stated. The want of respiratory murmur in a square inch of lung, on one side, appears to us a sorry proof of incipient phthisis. And the cure of this incipient phthisis by a seton, venesection, and sarsaparilla, *the want of respiratory murmur continuing when the patient was discharged in "tolerable health,"* is really a species of medical reasoning which we did not expect from Dr. Hastings. We think that, on reflection, the highly talented author will acknowledge that he has fallen into the error of which he has accused Laennec—that of trusting too much to auscultation in the diagnosis of pulmonary diseases. We are not aware that the stethoscope can be depended on for the detection of a deposition of tuberculous matter to the extent above-mentioned, or, indeed, to any extent. Whoever has been in the habit of employing this instrument frequently will acknowledge this. In the foregoing case, the constitutional symptoms were by no means so decided as to authorise the conclusion that incipient phthisis obtained—and the auscultic sign remained after the symptoms were removed.

Case 4. This case is related with the view of shewing that the stethoscope failed to shew the state of lung that was present when the examinations were made.

"The subject of this curious affection was 66 years of age. He was of a thin spare habit, and had been ill with a cough for several years. He had, in fact, been considered asthmatical for five years before I saw him. During the whole of that

period, he had rather lost flesh, and in each succeeding winter and spring, had suffered a considerable aggravation of cough, expectoration, and difficulty of breathing. I was first called to see him in March, 1827. He then complained of distressing cough, particularly at night, and he could not lie down in bed comfortably, for he no sooner attempted it than he was called up by cough. The expectoration was very various, but for the most part frothy; sometimes the frothy matter was mixed with a small portion of pus-like fluid; sometimes the pus-like matter was in great quantity, and occasionally, a tough mucus tinged with blood, was, after a severe fit of coughing, expectorated. The cough came on usually in fits, and was deep and sounding. The pulse was 80; tongue loaded; stools unnatural; urine pale and abundant; the breathing was laborious, and the muscles of the chest were called into unnatural action.

"By percussion, the chest gave a louder than the natural sound, both on the right and left side. The stethoscope discovered an audible rattle in several parts of the chest. It was a wheezing noise, and did not resemble the mucous rattle of bronchitis; in other parts of the chest, scarcely any rattle or respiratory murmur could be heard. I could not, in any part of the chest, discover pectoriloquism. The result of this examination did not much improve my knowledge of the disease of my patient, and it certainly did not lead me to expect that tuberculous disease had proceeded to any great extent. The result of percussion and auscultation, rather favoured the notion of emphysema, but the state of the symptoms was not explained by that view of the case. He lived about a month afterwards, and his death afforded me an opportunity of investigating the condition of the thoracic viscera.

"On opening the chest the lungs appeared larger than usual. On examining them more accurately, the air vessels under the pleura were found, for the most part, very much enlarged, and this gave the apparent increase of magnitude to the lungs. On pressing the lungs, the displacement of air was heard, not at all like

the ordinary pulmonary crepitus. The pleuræ were not adherent. When the lungs were cut, air escaped, and then there came in sight numberless miliary tubercles, imbedded in the pulmonary tissue. By extending the examination over each of the lungs, the tuberculous bodies were every where found numerous; but in the superior lobes of each lung, they were particularly so, and in several parts they coalesced. The cellular tissue was rather inflamed and thickened. The mucous membrane of the bronchia was much inflamed and thickened. There was considerable dilatation of the bronchial vessels.

"The abdominal viscera were healthy, excepting the liver, on which organ there was a deposition of tuberculous matter."

In this case, our author observes, the stethoscope and percussion failed to give warning of the existence of tuberculous degeneration, on account of the very rare conjunction of extensive emphysema of the lungs with miliary tubercle. The following very remarkable and melancholy case concludes Dr. Hasting's paper.

Case 5. "On the 19th of August, 1825, I was consulted respecting a young lady, who had been for two months in a dubious state of health, from a very slight cough, with trifling expectoration in the morning, which had once or twice been tinged with blood. On the morning of my visit, she had expectorated some blood, unmixed with pus or mucus, and of a scarlet colour. Her parents were, on this account, under great alarm, as they had previously lost three children in consumption. There was nothing, however, in the general appearance of the young lady, to have given alarm to an ordinary spectator. She was rather full of flesh, and considered that she had rather gained than lost in that particular during the last two months. To an experienced eye, however, she had not a healthy look, for the countenance was rather bordering on the cadaverous, and the eyes were dull.

The hands felt clammy, and there was an unaccountable listlessness in the young lady's manner. The pulse was 76; the tongue was clean, and the bowels were regular. I could not trace any feverish action during the twenty-four hours. The breathing was free, and a full inspiration caused no uneasiness. The catamenia were regular. In short, she declared, that excepting the slight barking cough which attacked her in a morning, when at the toilette, she was in perfect health. She betrayed, nevertheless, much perturbation at the sight of the expectorated blood, and declared a firm conviction that the disease was similar to that of which her relations had died.

"I examined, at this visit, the chest very particularly, and found that percussion produced a natural sound on each side. With the stethoscope, the respiratory murmur was heard natural on the right side, and no indication of any excavation of the organ. On the left side of the chest, however, perfect pectoriloquism was heard, on the front of the chest, between the second and third, and third and fourth ribs.

"Some blood was taken from between the shoulders by the cupping-glasses, and I directed a mixture of infusion of roses and tincture of digitalis, to be taken every four hours. I also advised quietude and a milk diet.

"In a few days the spitting of blood disappeared, and this amiable young lady described herself in perfect health again, excepting that she had a slight morning cough, and trifling expectoration. She walked about, without any hurry of respiration, and seemed anxious not to be considered an invalid. It was, notwithstanding, but too evident, that the disease was formidable, for another examination with the stethoscope established still more strongly my conviction, that there existed an excavation in the superior lobe of the left lung. The eyes also looked peculiarly languid, and the hands had a deadly clammy feel.

"She went on with very little appearance of illness, and without losing any flesh, till the 15th of September, on the morning

of which day, she coughed up about two tea-spoonfuls of dark-coloured blood, accompanied with a small quantity of pus-like matter. The pulse was 94. The breathing was not at all hurried, and there was not any heat of the skin. By appropriate treatment, this bleeding subsided, and did not return till the 28th of the same month, when a sudden exasperation of the symptoms took place. The breathing became hurried; the cough much more troublesome, and a considerable quantity of scarlet-coloured blood was expectorated. Various means were ineffectually tried to arrest the progress of the disease. The bleeding repeatedly occurred, and my patient died in the morning of the 8th of October.

"*Examination of the body.* No considerable emaciation had taken place. On elevating the sternum, nothing worthy of remark presented itself. On removing the lungs, they were found slightly adherent on the right side, but much more so on the left; on both sides the adhesion was high up, and in the direction of the axillæ.

"The internal surface of the trachea was free from purulent secretion. The bronchia contained a small quantity of sero-sanguinolent fluid. On tracing the ramifications in the right lobes, the only appearances were a rather suffused state of the blood-vessels in some parts, the lungs of a soft structure, and the air-vessels throughout, pervious.

"The general appearances of the left lobes resembled those of the right; but on the outer and upper surface of the superior lobe, appeared a cavity large enough to admit the half of a middle-sized orange, which had been prevented from opening into the sac of the pleura, by the adhesion of the pulmonary to the costal pleura. This cavity communicated freely with the bronchial tubes. Pus was searched for, but the slightest trace of it could not be found; nor was there the slightest degree of hardness in the sides of this ulcer, indicative of the process of adhesive inflammation having been set up. On the contrary, the appearance was that of simple ulcerative absorption rapidly advancing."

Dr. Hastings very properly observes, that

these failures do not warrant our rejection of auscultation. "For there is scarcely an affection of any one of those organs (thoracic) which may not be, in some degree, made clear, by studying the physical signs that are afforded by auscultation and percussion."

We return Dr. Hastings sincere thanks for the interesting cases which he has here most candidly laid before his professional brethren. Would that all of them were as modest and judicious as the talented writer of the foregoing communication.

XXXIII.

HOPITAL ST. LOUIS.

I. SYCOSIS MENTI.*

Pursuant to our intention already expressed in this Journal, we resume the notice of the reports from the St. Louis Hospital, by M. Cazenave. Every man who feels an interest in his profession, must regret that no similar institution for diseases of the skin exists in this metropolis. At present these cases, and numerous certainly they are, are scattered throughout so many dispensaries and hospitals, that scarcely any practitioner can hope to become sufficiently acquainted with them. No doubt, that if a medical man will make it his business to hunt them out, he will find them in abundance, even under existing regulations and impediments, a fact which the admirable works of Willan and Bateman are sufficient to establish. But the consumption of time in such a proceeding is so enormous, and the advantages, in a certain point of view, so problematical, that we entertain no hope of our confrères, young or old, engaging in the undertaking, at least until this good city of London becomes the Utopia of which dreamers love to talk. All we can do then is to make the most of what we have at home and we can import from abroad!

There being many cases of *sycosis menti* in the Hospital, they have been made the subject of a Clinical Lecture by M. Bielt. Passing over his objections to the term *sycosis* (the affection does not always resemble a *fig*) as well as that of *mentagre*, substituted for it, we believe, by Alibert, we may stop for a moment to consider the ravages it seems to have committed on the chins of the Roman dandies, when it first appeared in Italy, about the middle of the reign of the Emperor Claudius. Pliny describes it as always extremely acute in its progress, attacking all the face, the back, and the shoulders; altering the features; and giving such a hideous aspect to the patient, that death itself was considered preferable. Pliny believes that it was brought into his country by the Romans, who travelled into Asia, the greater part of which was then under their dominion. As M. Bielt, however, observes, it is much more likely that the adoption of Asiatic effeminacy and luxury were the causes of the disease, than its direct importation. We all know that after the days of Lucullus, the victorious and voluptuous General of the legions of the East, the simple habits of the Romans quickly passed away; and *sycosis* was only one of the many scourges, offspring of their vices and debaucheries, that at length made the mistress of the world a prey to horde after horde of barbarians, and ended in her glories becoming no more than "a school boy's tale."

The authors of the 15th and 16th century confounded *sycosis menti* with other eruptions, lichen and impetigo. Willan, Bateman, Macartney, and Plumbe are wrong according to M. Bielt in placing it amongst the tubercular diseases. "It is evidently a pustular eruption, for in the first place the tubercle is not constant; and in the next, in order that it may exist, the base of the pustule must have been the seat of successive inflammations, which not only indurate the dermoid tissue, but the lamellar beneath it. Tubercle then is not the essential character, and *sycosis menti* is a pustular affection."

The eruption is preceded by local tension, small red points supervene, and on the 3d, or 4th day, a small and slightly acuminated

* *Journ. Hebdomadaire*, No. XLII.

pustule is observed. Sometimes this extends and grows more prominent, sometimes it is formed around the hair, and the latter pierces its centre. After four or five days the pustules break, slight crusts succeed, and these become mixed with superficial scales which cover the neighbouring parts. If the patient is young and healthy, the pustules are numerous, and resolution is speedy and complete. If old, or flabby, they are few in number, gradual in their progress, and imperfectly resolved. Elevations remain where the pustules were, and if fresh inflammation comes on, the lamellar tissue is attacked, and tubercle is developed. In general, *sycosis menti* has a regular progress, eruptions of twelve or fifteen pustules, or more, appearing every five or six days. M. Bielt believes that the disease has its seat in the follicular glandules, differing, however, from *acné* in this, that whereas the latter selects parts free from hair, *sycosis* attacks those which abound in it.

This disease is most commonly met with in men, but occasionally it shows itself in females, and then M. Bielt thinks that it resembles *acné*. It is most frequent after the age of puberty, and chiefly affects those with strong, brown beards. It is sometimes connected with irritation of the digestive organs, as where it follows the abuse of stimulating liquors. Persons exposed to a strong fire, as cooks, metal-workers, &c., are peculiarly liable to the disease. We have seen it apparently the consequence of privations in a miserable mechanic, where probably bad food had been assisted in its operation by worse drink. In persons disposed to its occurrence, the irritation of the razor, no doubt, would aggravate, but M. Bielt conceives it to be merely a delusion of the patient's amour propre, to assign it as the cause of *sycosis*.

From *impetigo* it may be distinguished by the pustules of the latter being assembled in groups, superficial and irregular. They break spontaneously on the third or fourth day, and are replaced by a thick and extended crust. Those of *sycosis* are separate and deeper, "have evidently their seat in

the sebaceous follicles," and exhibit a regularly rounded form. Eczema and herpes cannot well be mistaken by any moderately informed person for this disease, but the tubercles of syphilis are more likely to be so. The main instrument of diagnosis in the latter case, must consist, we imagine, in the history and presence or absence of other symptoms of the venereal poison. M. Bielt, however, points out the specific differences between the tubercles of *sycosis* and those of syphilis, and remarks that the latter are primitive, prominent, large, round, shining, and of coppery or livid colour. Those of *sycosis*, on the contrary, are always secondary to pustules, and frequently intermixed with such; they depend on a deep inflammation of the skin, and are conoid in their shape. M. Bielt relates a curious instance of the consequences that might have followed a mistake in the diagnosis of this affection. It occurred in a clock maker, who suffered from *sycosis* to such a degree that the tubercles had acquired an enormous size, and the case was not at all understood. After a great variety of treatment, a celebrated surgeon decided that it was cancer and proposed extirpation of the lip. Before consenting to this formidable operation, the patient consulted several other medical men, and amongst them M. Bielt, who recognised the disease, and was able to effect a perfect cure.

The duration of the disease is extremely uncertain, and not to be predicted from the aspect it assumes at first. Sometimes it sets in with much severity and terminates notwithstanding in a few weeks: whilst at others, there are merely five or six pustules at distant intervals, which are very intractable indeed.

The treatment must be varied according to the circumstances of the individual case. If the patient be young and full of blood, the affection acute and extensive, bleeding, both general and local, is required. The general depletion should go first, the local succeed it, and the latter should be made beyond the inflamed surface. We lately saw

a good example of the advantages derived from the application of leeches, in the immediate neighbourhood of the sycois. Depletion does not answer so well in persons of a flabby lymphatic habit, when the tubercles are numerous and near one another. If they become red and inflamed, local bleeding only must be had recourse to.

When the digestive organs are in a good condition, which, by the bye, we believe they seldom are, light purging by calomel, castor oil, the acetate of potass, sulphates of magnesia and soda, &c. is useful. The local treatment must be also regulated by the nature of the case. In the pustular stage emollient applications alone should be employed, especially "the feculæ of rice, potatoes, or merely lotions of eau de guimauve." Poultices of linseed meal frequently give rise to a psyracious eruption amidst the sycois, which becomes a very troublesome affair. When the pustules have passed into tubercles, *douches* of vapour for ten minutes, or a quarter of an hour, are often very useful. If continued longer than the time mentioned, they are apt to excite erysipelatous inflammation in the part. Sulphurous *douches en arrosoir*, and alkaline *douches* produce the same effect. Ointments of the proto-nitrate of mercury, in the proportion of one part in twenty-four of lard; or the ammoniacal proto-chloruret; or of the deuto-ioduret of mercury; or finally, the ioduret of sulphur, are often of service. The patient's diet is the main thing after all, and must be light and unirritating in robust patients, but even slightly stimulating in the chronic stage of the complaint in weakly persons or old men.

We need scarcely say that the above is a very excellent, practical series of observations on sycois, and one which is not unworthy the attention of our readers. The affection to be sure is seldom severe, but by being mistaken and improperly treated may be made much worse than it would otherwise become.

II. LUPUS—FRICTIONS WITH THE DEUTO-IODURET OF MERCURY.

M. Bielt has seen much advantage from

frictions with the deuto-ioduret of mercury in lupus, the surface becoming "reanimated" under its use, and the violet tint changing for a florid and brighter colour. From ten grains to a scruple is the quantity, mixed with lard, or any fatty substance. A scrofulous child in the hospital affected with lupus in a very severe degree, has been treated by this application, in combination with the muriate of lime internally. The ointment was only applied on the right side of the face, in order to determine its actual effects. Upwards of a month has now elapsed since the commencement of the treatment, and the left side exhibits no apparent change, but the right is evidently improved. The violet colour is replaced by one of a bright rosy red, the injection of the venous capillaries is considerably diminished, and healthier action being thus set up, strong anticipations of a cure are entertained. Iodine had been previously employed in this case without effect, but in others M. Bielt has seen it productive of decided benefit.

III. ERYTHEMA CIRCINNATUM.

There is a species of erythema not described by authors, but resembling in form the *herpes circinnatus* of Willan. It is a kind of centrifugal erythema commonly occupying the face and cheeks, presenting neither papulæ nor vesicles, and consequently neither lichen nor herpes. It is a species of puffing up of the skin, with pretty intense redness, formed into completely circular patches, the centre of which is sometimes unaffected. M. Bielt has given to this variety the name of erythema circinnatum, but nothing is said about its treatment or etiology.

IV. RUBEOLA—BAD EFFECTS OF BLOOD-LETTING.

During the last year a "murderous" epidemic measles prevailed at Paris, being complicated with inflammation of important organs, and almost always pneumonia. According to M. Bielt the great difficulty in managing such cases consists in the employment of sanguineous evacuations. Even in the

cases complicated with peripneumony M. Bielt doubts their good effects, as in four children whom he saw under such circumstances, they were followed by very unfortunate results. Amongst other cases, the following occurred. A lad about 13 years of age was attacked by measles, which exhibited from the commencement spots of purpura, generally a formidable symptom. On the sixth day pneumonia supervened, bleeding was had recourse to and the patient died. In the same house, a girl of 15, who had had the disease the year before, and was kept away from the former patient, was nevertheless attacked with measles. From the third day there was dyspnoea, constant cough, and all the symptoms of inflammation of the right lung. Bleeding was employed—the measles quickly disappeared—the skin grew pale—the pneumonia too made progress, and this patient also sank. The last fact is cited by M. Bielt as especially remarkable, in consequence of its showing the repulsion of the eruption of measles, an occurrence which is denied to take place by authors of considerable merit.

The above cases are brought forward by M. Bielt, to prove the pernicious effects of bloodletting, but unfortunately he tells us of no substitute. If acute pneumonia supervenes upon measles what is the practitioner to do? If he neglects to bleed, the patient will probably die, and then what an opportunity for the *charitable* remarks of his professional brethren, and the suspicions of relatives and friends? If he bleeds, he does wrong, according to M. Bielt, and thus he is placed on the horns of a dilemma. We must confess, however, that we should be greatly disposed to adopt the depleting plan, with caution and circumspection of course, in spite of the above unfortunate cases. In these we see no evidence that the patients would not equally have sunk had the lancet never been unsheathed, nor yet that the latter was the cause of death. It does not follow because a patient with pneumonia dies *after* bleeding, that he necessarily died of it. Other circumstances must be adduced in order to bring the danger home to the measure, and those

circumstances we humbly conceive, are not detailed in the present cases.

XXXIV.

GLASGOW ROYAL INFIRMARY.

I. DISEASE OF THE MAXILLARY SINUS.*

We have often expressed much pleasure at the zeal with which our northern confrères attached to public institutions have of late endeavoured to make their experience available to others by clinical reports. Dr. Ballingall, of Edinburgh, and the surgeons of the Glasgow Infirmary, really deserve much credit for the perseverance they have shown in running this good race, which must lead to honest satisfaction on their own parts, and hearty approbation from their brethren. But dropping these pleasing considerations for the present, we proceed to advert to the *matériel* of a report of the surgical cases treated in the Glasgow Infirmary, from the 1st of November, 1828, to the 1st of May, 1829, by Dr. Couper, senior surgeon to the Establishment.

Inflammation of the lining membrane of the Highmorian antrum, says Dr. Couper, sometimes terminates, not in suppuration, but in copious deposition of thick mucous matter, filling up the whole of the cavity. Its speedy removal is essential to prevent ulceration of the mucous membrane, caries of the bony parietes, or fungus in the interior. The following case is advanced as the representative of the foregoing opinions.

Case. D. McQueen, æt. 70, admitted Nov. 13th, 1828, with the right nostril occupied by a fungous tumour completely filling its cavity, and pushing the septum narium towards the left side. The fungus resembled in appearance the common soft polypus of the nose, and bled when touched—right cheek tender and somewhat

* Glasgow Journal, No. VII. Aug.

fuller than the left—right side of the roof of the mouth softer and more prominent than the left—gums spongy, and most of the *teeth* (he was 70) *loose*, with slight purulent discharge oozing out from their sockets—right lachrymal sac much distended with constant flow of tears—right eye protruding about half an inch, with eversion of the lower lid, and chemosis of the conjunctiva, large and sluggish pupil, and somewhat impaired vision—hearing of right ear affected—occasional severe pain, commencing round the orbit, and extending over the whole right side of the scalp, ~~most~~ frequent at night, and accompanied with throbbing of the temples. These latter attacks were generally followed by bleeding at the nose, which afforded relief; the general health was good.

Twelve months previously he had received a blow above the right ear with a stick, which stunned him, and occasioned slight epistaxis. After this he became subject to head-ach, and in the course of three months, he noticed slight obstruction in the right nostril, succeeded by occasional hæmorrhages. Six weeks before admission, the vision of the right eye began to fail, but the eye-ball did not sensibly protrude till three months afterwards, since which period the symptoms, to use an American phrase, “progressed.”

“The third and fourth molares on the diseased side being extracted, a perforation was made through their sockets into the antrum. Only a little blood issued; on introducing a probe no firm tumour was perceptible in the antrum, but the cavity was found to be filled with a soft pulpy substance, through which the probe could be passed freely in all directions, coming into contact with a small extent of bare bone in the direction of the orbit. On injecting tepid water through the perforation, it issued freely by the nostril, bringing away, besides blood, a quantity of white substance, of the consistence of butter. The polypus being removed from the nostril with the forceps, tepid water was repeatedly injected through the perforation, until it issued unmingled from the nostril, and the quantity of inspissated mucus thus extracted, was greater than

would have completely filled the antrum in its natural state. The injection with tepid water was afterwards continued daily, and occasional anodynes were given to alleviate the pain in the head. At the end of two weeks, the swelling of the cheek and palate, the protrusion of the eye-ball, the epiphora and ectropion, had disappeared; the vision of the right eye was completely restored, but he still heard imperfectly with the right ear, and suffered occasional attacks of pain in the right side of the head. At the end of two months, he left the hospital in perfect health, excepting occasional slight head-ach. There was then no discharge from the antrum, although the perforation had been carefully kept open, and no bare bone could be perceived with the probe.”

II. AFFECTIONS OF THE EYE.

1. Case of Gonorrhæal Ophthalmia.

J. Watt, æt. 26, admitted Dec. 10th, 1828, with the lids of both eyes greatly swollen and of purple colour; the conjunctivæ of dark red colour, much distended, and discharging a large quantity of thick yellow matter; state of corneæ not to be ascertained on account of the intolerance of light; most severe burning pain in both eye-balls, extending round the orbits, and greatly aggravated at nights, or when exposed to the light; pulse 180, of good strength; skin hot; tongue white. Four weeks previously he contracted gonorrhœa, for which he used some internal remedies, that at the end of a fortnight greatly diminished the discharge. Twelve days before admission, felt a slight itching in both eyes, accompanied with heat and acrid discharge, and after two days the eye-lids became swollen and the discharge purulent. No change in the gonorrhœa took place when the eyes became affected, but even on admission he had some discharge from the urethra, unaccompanied with heat or pain.

“Although the first stage of the disease was past, it was thought requisite to apply leeches several times around both eyes, during the first two days after this

patient's admission, and the application was followed by much relief of the pain. The eyes were frequently washed out with a syringe and tepid water, emollient and anodyne cataplasms were applied, vinum opii was dropped in the eyes, and blisters were placed on the temples and the nape of the neck, and kept open during the course of the disease. No stimulants were applied to the urethra, as the discharge from it continued unchanged. As the violence of the disease abated, which it did very slowly, the injections of tepid water were exchanged for a weak solution of corrosive sublimate in rose water, with the addition of a little vinum opii, and afterwards for a solution of lapis divinus; wine, tonics, and nourishing diet were also given, but it was not till two months from the time of admission that he was able to leave the hospital. He had then been about three weeks free from pain and discharge from the eyes. The left eyeball was much shrunk in size, and its vision was entirely lost from exfoliation of the cornea. The right cornea had also suffered much from the same cause, but a small portion of it still remaining lucid, he could see with this eye so as to number large objects held up before him, or guide himself through the ward. The discharge from the urethra continued through the whole course of the disease; and at the time of his dismissal was still so considerable that he required the use of an astringent injection for its removal.

"It may be fairly presumed, that the ophthalmia in this case did not arise from the direct application of gonorrhœal matter to the eyes, because the disease appeared exactly at the same time in both eyes, and the chances of simultaneous inoculation are not very considerable. It is also plain that the occurrence of the affection of the eyes was not an example of metastasis, because the gonorrhœa suffered no change on the appearance of the new disease, but ran its usual course, continuing even when the ophthalmia had ceased. It must be concluded, then, that this severe affection arose from a sympathy existing betwixt the eyes and the urethra, a sympathy, which fortunately operates only on rare occasions."

We do not deem it by any means conclusive that the disease was not produced by contagion, *because* both eyes were affected at the same time, but let that pass. The case is an instructive one, and shews well the ravages of this severe ophthalmia. The abominable carelessness and dirtiness of some patients is really astonishing; we lately saw a case of gonorrhœal inflammation of the eye, produced by the patient's having applied to it the same rag that he used for the penis!

2. Cancer—Extirpation of the Eye-ball.

James Bennie, æt. 50, admitted Feb. 9th, 1829, with a tumour the size of a kidney-bean, of cartilaginous hardness, and adhering pretty firmly to the bony margin of the orbit, at the outer canthus of the right eye. In its centre was an irregular ulcerated opening, discharging a quantity of curdy pus, but no denuded bone could be felt with a probe—it was the seat of lancinating pain, which frequently shot upwards along the forehead—the integuments around had a dull livid hue—the eyelids could only be separated to a small extent, and merely disclosed a white, opaque, rough surface, where the eye should be—general health good, with the exception of acidity of stomach. The disease commenced five years previously in the form of a pustule at the outer angle of the eye, which broke and formed a small irritable sore. The latter slowly extended and encroached on the eyeball, which gradually shrank, and the sight of which had been destroyed for twelve months before his admission.

The tumour, eyeball, and diseased portion of eyelids were extirpated with the hook and scalpel, the optic nerve only being cut with a pair of curved scissors. No bleeding took place, but the pain was excruciating, and was only appeased by a large anodyne. Suppuration took place in four days, the patient was dismissed with the wound cicatrized at the end of a month, and he now continues in perfect health.

We have to regret that no account of the

dissection of the extirpated tumour is reported, and consequently that no opportunity is afforded the profession of judging whether the disease were really scirrhus. We need scarcely say that such accompaniments to cases of this kind are absolutely essential for the formation of a proper judgment on the issue. It is notorious that for want of such details many and many a fallacious cure of cancer has been recorded and believed, and patients actually affected with that disease, subjected on the strength of those histories to unnecessary, perhaps injurious, measures.

III. LITHOTOMY AFTER THE OPERATION FOR FISTULA ANI.—CONSEQUENCES OF THE OPERATION.

James Hardie, æt. 37, admitted March 11th, 1829, with frequent desire to make water, which was passed with much pain along the course of the urethra and neck of the bladder, especially when the last drops were voided—urine sometimes bloody, especially after exercise or the introduction of instruments into the bladder, but without any mucous or sandy deposit. A full-sized sound passed readily into the bladder, where it struck on a hard smooth substance, which was always found lying towards the right side, and could not be felt by the finger passed into the rectum; the prostate gland was natural. Extending from the anus forwards, and towards the left side, occupying part of the incision made in the lateral operation of lithotomy, was the cicatrix of an operation for fistula in ano, performed some years previously. The symptoms of stone commenced about sixteen years before his admission, but had never been urgent, till within the preceding fortnight, when they followed, as he imagined, the use of carbonate of soda internally.

“A few days after admission, the lateral operation was performed by running a straight probe-pointed bistoury along a curved staff, grooved on its convex side. A little more than the usual time was spent in cutting into the urethra, in consequence of the hardness of the cicatrix just mentioned, but the stone being extracted on the first

introduction of the forceps, the whole operation was finished within six minutes. The calculus weighed about an ounce and a half, and was composed of the phosphates of ammonia and magnesia. During the first few days no bad symptoms occurred. About the fifth day the wound began to look foul, and on the eighth day some flatus and a little feculent matter was observed to escape from it. On examination with the finger it was found that the old cicatrix had ulcerated, producing a small aperture betwixt the wound and the rectum, immediately above the sphincter. A bistoury was passed through the opening, and carried downward, so as to divide the sphincter. An elastic catheter was kept constantly in the urethra, and stimulant dressings were applied to the wound. Healthy granulations soon made their appearance, and at the end of seven weeks the cicatrization was complete, but a small opening into the urethra still remained, through which the greater part of the urine was discharged. On his return to the hospital, as directed, at the end of three months after the operation, the opening into the urethra had contracted so much, that no urine escaped by it, if he kept his thighs together during micturition, and even when he did not observe this precaution, the escape was trifling. It was proposed to apply the actual cautery for the purpose of closing the fistulous opening, but the inconvenience he suffered was so trifling that he declined to submit.”

IV. FRACTURES AND AMPUTATION.

CASE 1.—*Fracture of the Radius, Olecranon, and great Trochanter*

Clementina McGregor, æt. 29, of delicate habit, admitted with much swelling of the left wrist—fracture of the radius about three-fourths of an inch from its carpal extremity—transverse fracture of the olecranon, which was drawn considerably upwards—the soft parts round the elbow tense and greatly swollen, and the integuments over the fracture of a livid hue. Besides these various ills there were, swelling of the left buttock and upper third of the

thigh—the limb about half an inch shorter than its fellow, and the toes everted—crepitus in the situation of the great trochanter on making extension or rotating the limb—acute pain in the hip on pressure or motion. The accident had happened five hours previously from a violent fall on her left side, in consequence of her foot having slipped in the street.

Inflammation being subdued by the usual means, splints and bandages were applied to the arm and thigh, both of which were placed in the straight position. The radius and femur united in seven weeks, but the olecranon required three months for its consolidation, and then much stiffness of the joint remained, which was diminished by friction and passive motion.

CASE 2. Fracture of the Coronoid Process of the Ulna—Symptoms observed.

F. Ferguson, æt. 17, was attacked on the night of the 5th of April, and knocked down upon his left side, by which he severely injured the left elbow. On admission, two days afterwards, the following is the list of symptoms enumerated.

“At present there is much swelling and tension around the elbow joint. The olecranon is not fractured, but has been thrown upwards and backwards, and a considerable hollow is felt immediately above it. The upper head of the radius is dislocated outwards and backwards. The inner condyle remains attached to the shaft of the humerus, but the distance betwixt this condyle and the olecranon is increased about an inch. The external condyle cannot be felt from the situation of the head of the radius. The distance betwixt the olecranon and the acromion measures an inch less on the injured, than on the opposite arm. The forearm is kept bent at an obtuse angle with the humerus, and is in a state of pronation. He can, however, supinate the arm, although with difficulty and pain. By fixing the humerus, and making extension of the forearm, the joint can be made to assume its natural appearance, but the instant the extension ceases, the joint resumes the appearance just described.

“From these various particulars, which were ascertained gradually as the swelling of the soft parts abated, it was concluded, that the coronoid process of the ulna was fractured, an injury of very rare occurrence. The forearm was placed across the chest, with the fingers pointing towards the opposite shoulder, and secured in this position with splints and a bandage. At the end of four weeks union had taken place, and was attended with little deformity, although some stiffness of the joint. The latter was diminishing, under the use of passive motion, when he left the hospital.”

We are “free to confess,” in the oratorical phrase, that the symptoms are not conclusive, at least to our minds, in determining the existence of a fracture of the coronoid process. The impossibility of feeling the external condyle is a somewhat suspicious item, and we rather suspect, that the injury was rather an oblique fracture of the lower extremity of the humerus, than what is considered in the report. In cases like these, where very rare accidents are suspected, we think that unless the diagnosis is clear, the leaning should always be the other way; we mean that, *cæteris paribus*, the symptoms should be rather referred to the common than the extraordinary injury. The contrary practice introduces a dangerous laxity in diagnosis.

CASE 2. Amputation at the Wrist-Joint for Compound Fracture of the Hand.

In a case of compound fracture of the hand from machinery, the fore-arm being unhurt, Dr. Couper resolved to amputate at the wrist-joint. This being fully extended, an incision was made with a narrow catline through the integuments, over and in the direction of the radio-carpal joint, when the wrist was bent, the instrument passed into the joint, and brought out in a direction obliquely downwards, so as to form a flap out of the upper part of the palm. The flap adhered well, and in three weeks “the stump was whole.”

“This operation,” says Dr. Couper, “appears to possess several advantages over the usual mode of amputating at the

fore-arm. The motions of pronation and supination are better preserved, which is of consequence in the event of using an artificial hand. And lastly, the ends of the bones are better defended from injury, being covered with cartilage, nor does this circumstance, as far as appears from the present case, impede the healing of the wound." They must take the fact, who may not like the reasoning, in the above instance. The opinion that the ends of the bones being covered with cartilage is a protection, differs from the sentiment usually expressed by surgical authorities, and acted on in practice. However, there are more things in Heaven and Earth than are dreamt of in our philosophy, and now-a-days one learns to be surprised at nothing.

XXXV.

MADRAS MILITARY HOSPITAL.

REMARKS ON HYPOCHONDRIASIS, MELANCHOLIA, AND INSANITY. By JAMES ANNESLEY, Esq.

In the second volume of Mr. Annesley's work on Indian Diseases, that zealous observer has made some remarks on the influence of morbid secretions in the bowels upon the mental faculties. Adverting to the statement made by Esquirol, (but which, by the bye, has not been corroborated by the experience of others) respecting the displacement of the colon in 33 out of 168 cases of insanity, Mr. A. observes:—

"Now whether this derangement proceed from accumulations of fecal matters in this viscus, or from great relaxation and want of tone of its coats and peritoneal covering, the necessary consequence of this condition must have been, in every case, to have favoured an unnatural retention and collection of fecal and excrementitious matters in the bowel, and to have generated disease in the mucous surface on which they lodged, inducing sympathetic disorder in various parts of the system, more particularly in the brain itself."

Without pretending that this may be a general or even a frequent cause of mental derangement, Mr. A. very properly directs the attention of his brethren to the subject of purgation in mania and melancholia. In this he is supported by the ancients, who were good observers, though bad theorists. They, as is well known, employed the most active vegetable cathartics, especially hellebore conceiving that the removal of black bile would be the removal of the disease.

"In a very great proportion of cases of melancholic alienation of mind, and indeed in other forms of mental disorder the stools procured by means of active purging are very dark, tenacious, and even of a pitchy blackness, resulting, in our opinion, from the accumulation and admixture of the various secretions, excrementitious matters, and imperfectly digested food, poured into the alimentary canal, and from the changes they have undergone during their retention in that situation."

With this view our author has always made it a point, in cases of mental alienation, to institute a most active and uninterrupted course of purgative medicines in conjunction with those means which act in restraining the activity of circulation in the brain. Thus purgative medicines have been daily prescribed for months in succession, while general or local blood-letting has also been frequently employed. Mr. A. has occasionally exhibited tonics and cordials during this course of depletion and purgation, with the view of supporting the energies of life, and preventing exhaustion.

Melancholia and mania frequently occur among Europeans in hot climates, and Mr. A. informs us that he has had extended experience in those complaints. According to his experience, morbid accumulations in the bowels formed one of the characteristics of this class of maladies, while the energetic employment of purgatives always proved decidedly successful in the treatment. Mr. A. has detailed several cases verbatim from the hospital reports.

"In all of them the employment of purgatives brought away most abundant motions of a very dark, tenacious, and

offensive description. In some of those cases, the purgative plan had been continued for many days and even for several weeks before it succeeded in detaching the morbid secretions adhering to the coats of the bowels; but, in every case, disorder began to yield as soon as these were carried off, and the motions to assume a healthy character."

Mr. A. cautions us against *intermitting* the purgatives even for a single day, till the secretions become healthy, *after the evacuation* of motions similar to the above. The mere colour of the faces is not to be trusted.

"They are often very offensive, of a peculiarly disagreeable odour, and when minutely examined, as they always ought to be, they are observed to be tenacious, like bird lime, of a putty-like consistence, and streaked with various shades of colour, even when reported to the practitioner as being of a natural appearance. The minute examination of the alvine evacuations is a point of the utmost importance in practice, more especially in the disorders under consideration; and although it is not an agreeable office, is a very necessary one, and will be justly considered as such by those who wish to treat disease successfully. It cannot, therefore, be too strongly impressed upon the mind of the inexperienced practitioner."

This inspection of the excretions is too often neglected in private practice, to the great detriment of the patient and the disappointment of the physician. We shall glance at one or two cases.

Case 1. Colonel ———, had been affected for some years with dyspeptic complaints, accompanied by attacks of calculous affections, during which there was great depression of spirits amounting to melancholia. Mr. A. prescribed aloetic and mercurial pills at night, and bitter aperients in the morning. These medicines had an excellent effect and procured one or two copious motions daily

"The discharge from the bowels was at first extremely morbid, black, tenacious,

and offensive, and, so long as they continued in that state, the laxative was pursued without intermission. As the alvine discharges became more natural and healthy, his general health improved, but he suffered occasionally from extremely low spirits and sinking, often followed by general coldness over his whole body; and whenever this took place, the motions were always black, adhesive, and tenacious, like tar, the removal of which from the coats of the intestines appeared to cause this sense of sinking and coldness. As a temporary measure, the camphor mixture with aqua ammoniac and spiritus atheris vitriolici was then used, and with advantage; but he always improved and got better after the black, tar-like motions were removed. About three weeks after he first put himself under our care, we had recourse to the nitro-muriatic solution, and the body was sponged morning and evening with it. He continued this remedy whilst he was under our care with manifest benefit; the functions of the liver became more active, and the bile was secreted of a more healthy quality; the bowels performed their duty more regularly, though he was obliged occasionally to have recourse both to the pills and mixture, which we still recommended him to continue."

Case 2. MENTAL ALIENATION, WITH GREAT TIMIDITY.—Lieut. ———, was admitted. It was stated that mental derangement came suddenly on while proceeding by sea to Quilon. He fancied himself guilty of some great crime which he would not explain, and that every one he sees has a design against his life. Pulse soft and full—skin rather hot—face flushed—tongue coated yellow—bowels constipated. A brisk purgative, consisting of ten grains of calomel, followed by the senna draught, was exhibited, and produced copious discharges by vomiting and stool. Next day he said he felt better, but was still labouring under mental aberration, having suffused eyes, contracted pupils, and heat about the head. Leeches, blisters, purgation. The dejections on the third day were copious, black, and very fetid. The aberration continued, and the purgative plan was persevered in. At the end of the third week he was discharged cured.

Case 3. The wife of one of the soldiers was admitted into hospital in a state of mental derangement, with all the usual symptoms, she being then in the fifth month of pregnancy. She was put upon a plan of purgation with local depletion, as in the preceding case, and recovered in little more than a fortnight. In the course of the treatment, great quantities of scybalous and other morbid matters came away.

We need not detail any more cases, as the *methodus medendi* was nearly the same in all, however varied were the phenomena of hallucination. There can be no doubt, indeed, that purgation is one of the most important items in the catalogue of remedies for mental alienation, dependent, as it so often is, on gastric and intestinal disorder.

XXXVI.

GLOUCESTER INFIRMARY.

I. TUMOUR GROWING FROM THE DURA MATER AT THE BASIS CRANII.

Mr. Wood, who signs himself, late pupil to Mr. Fletcher, has reported two or three cases from the above institution, in the last Number of our Midland contemporary. The first case is not devoid of interest.

Case. "William Bevan, æt. 21, four months previous to his admission into the Infirmary, caught a violent cold, by working in a damp room under ground, which continued about a month, and then left him; but a few days afterwards, he experienced a dull aching pain in his right ear and temple, which gradually extended over his cheek, always continuing, but sometimes much worse than at others. He was then bled, and had leeches applied to his temple, by which the pain was a little alleviated. The pain then extended along his lower jaw, his right eye-lids were at the

same time drawn a little outwards, which was accompanied by a sensation of stiffness.

"In proportion as the pain descended and spread over his face, the feeling of the affected parts diminished. He lost his hearing on that side entirely; the corner of his mouth was drawn towards his cheek, and his speech became very thick and indistinct. The inside of his mouth was a little swollen near the angle of the jaw; his taste on the right side was destroyed, he lost his appetite, and became uniformly dull and sleepy. A discharge of matter also took place from his ear. The pain and stiffness at length extended precisely over half his face, accompanied by a throbbing in his ear, and a slight catching sometimes in his neck. He also complained of a dull heavy pain on the right side of his head, particularly affecting his ear and forehead. In the course of the first month after his admission, he was cupped on the temples and between the shoulders two or three times; bled from the arm to xxx . and had, at three several times, six moxas applied on the affected side of the face; he took, also, some 5 gr. doses of calomel, followed by strong aperient medicine, by all which treatment he was so much weakened as to be overpowered by very slight exertion. However, after the cupping, he always felt relief and in some degree after the bleeding; and he thought the pain in his face a little better after the application of the moxas. On the whole, he was much freer from pain than when he came into the house.

"At this time, a seton applied in the nape of his neck, gave relief to his head, but the pain began to extend occasionally to the left side of his forehead. The throbbing and pain in his right ear continued much the same. Recovering from his state of extreme weakness, the pains in his face increased, and became again as bad as ever; a stiffness in his neck was also perceptible on the right side."

In the course of September, blisters behind the ear, antimonial ointment, and cuppings, were productive of temporary benefit; but, in October, there was costiveness, and the pain in his head was very severe. The latter was shaved, and moxas applied with some relief. Scruple doses of the carbonate

of iron were now tried, but they aggravated the symptoms and were discontinued. On the 9th of November, it is reported (he had previously lost his voice) that "he describes his sensations as if an immense weight were placed upon his head, and when he moves it, or begins to doze, he experiences a dreadful whirling sensation. This he has felt, in some degree, ever since he came in, but it has increased greatly within these two days, so as to keep him constantly awake. His throat appears choked up with something which prevents his speaking, except in a whisper." The symptoms gradually increased, a great and augmenting discharge of mucus from the right nostril took place, and in February the patient died. The account of the *sectio cadaveris* is extremely brief, too much so, indeed, to convey much information respecting the actual character of the disease to the readers of the case. We must give it as we find it.

"The post-mortem examination discovered a large tumour arising from the dura mater, covering the middle division of the right side of the base of the skull, consisting of a number of encysted tubercles, filling up the hollow of the squamous portion of the temporal bone, thence (the bony matter, which would have otherwise stopped its progress, being destroyed) descending into the throat, and forming there a large conical pendulous projection. The front of the tumour blocked up the posterior entrance of the nostril, and its right side that of the corresponding eustachian tube."

The second case is one of a tumour, apparently, as far as we can judge from the history and symptoms, fungus hæmatodes of the testicle. As the patient, however, went out of the house before dissection could solve all doubts, we do not consider the case satisfactory enough to notice in detail.

III. CATARACT SUCCESSFULLY TREATED BY COUCHING.

W. Hill, æt. 88, entered the infirmary with hard lenticular cataracts, which prevented his distinguishing any object, but allowed him to discriminate easily between light

and darkness. The application of the extract of belladonna produced great dilatation of the pupils, with increase of the power of vision. He had been subject to ophthalmia since his childhood, had lost all his eye-lashes, and eye-lids were considerably thickened. The first symptoms of cataract took place about a year and a half previously. After a dose of calomel and an opening draught, the extract of belladonna was applied, and Mr. Fletcher immediately proceeded to the operation. He first punctured the eye with Saunderson's needle, about three lines and a half behind the transparent cornea, and transfixing the lens obliquely in a horizontal direction, carried it away to the bottom of the eye by a circular motion. He then gradually withdrew the needle, rotating it gently, to free it from the lens. In the same way, he operated immediately afterwards on the right eye. Cold applications over the eyes, a dark room, and low diet, prevented any inflammation; the lenses remained depressed, and the patient was discharged, with restored sight, the third or fourth week after the operation; a very satisfactory result.

XXXVII.

BRISTOL INFIRMARY.

CASES OF ANEURISM.*

Mr. Morgan, apothecary to the above institution, has recorded some interesting cases of aneurism in the first, and hitherto only number of our Provincial contemporary. We cannot omit to notice them.

Rupture of a Popliteal Aneurism—Amputation.

Case 1. A healthy sailor, æt. 30, had experienced a little pain in his right ham for some days, when he noticed there a pulsating tumour, the size of a walnut. On the fourth day from this he felt something burst in it during an ordinary fit of

* Provincial Medical Gazette, No. I.

sneezing, and his leg immediately swelled and became painful. The swelling and pain increased, and in two or three days gangrene commenced in the instep and foot and quickly spread upwards, accompanied with severe constitutional irritation. Amputation was performed on the 7th day from the bursting of the aneurism, and the 11th from the day the man first became sensible of its existence; the case has since done well.

"On examining the amputated limb, an aneurismal sac was discovered, capable of containing four or five ounces of blood, originating from the middle of the popliteal artery posteriorly, about an inch of which opened into it. It was imperfectly formed behind, and presented there two openings, each readily admitting a couple of fingers, through which the contents had escaped: an abundance of blood was extravasated between the muscles and beneath the integuments in all directions. The sac elsewhere was firm and strong, lined with thick and dense laminæ of fibrine, and manifestly of much earlier date than the patient's history supposes. *The popliteal vein was filled by a firm coagulum for the space of two inches, quite obstructed it.*"

Why the latter piece of information is so carefully put in *italics*, we really cannot conceive. Does Mr. Morgan imagine that it bears upon any disputed point? or does he actually think it wonderful that the circulation should be obstructed in the popliteal vein, when a large solid sac originated from the posterior part of the popliteal artery, and "abundance of blood" was extravasated in every direction? It seems to us a very natural occurrence.

Case 2. A cattle-drover, ætat. 32, was admitted into the infirmary under Mr. Richard Smith, with the left lower extremity twice the size of the other, as high as the lower third of the thigh—the foot and surface of the leg œdematous, with distinct fluctuation, as of matter beneath—considerable pain, but not much tenderness, in different parts of the leg,—general health greatly impaired—restless nights, hectic, and other symptoms of con-

stitutional irritation. He had been for many years in the habit of walking great distances, and had travelled upwards of a hundred miles in two days, very shortly before he was taken ill. The disease commenced two months before his admission with considerable pain in the calf of the leg, which shortly confined him to bed, and was followed by œdematous swelling about the ankle. The pain and the swelling increased, and his health became disturbed with their advance.

"This condition of things had been gradually coming on from the first: he was not, like the former man, sensible of any sudden bursting, neither at any time was he conscious of the existence of a distinct tumour, or pulsation. It was determined, in consultation, first, to puncture the most fluctuating part, and to be guided by the result in forming an opinion on the practice to be pursued: an opening accordingly was made about the middle of the calf, but nothing escaped. By introducing the finger, an abundance of soft coagulum could be felt, occupying a large cavity within, thus clearing up a little of the obscurity in which the disease previously was involved. Amputation was now immediately performed, and the following state of parts discovered on examining the limb: an aneurismal sac, large enough to hold twelve or fourteen ounces of blood, arose from the posterior part of the middle of the popliteal artery, about two inches of which communicated with it. Anteriorly and laterally it was distinct and strong, but very defective posteriorly, where numerous breaches existed through which its contents could find a ready issue. The sac, such as it was, contained a quantity of old coagulum, but not much laminated fibrine—the popliteal vein was pervious throughout. An immense quantity of extravasated blood, much more than in the former case, was found in various parts of the leg, particularly between the muscles; and here and there a little uncircumscribed purulent effusion existed, the result, probably, of diffused cellular inflammation.

"The patient is now in the house, with a favorable prospect of recovery."

CASE 3. *Spontaneous Cure of Femoral Aneurism—Gangrene.*

Morris Ryland, æt. 35, plethoric, and enjoying good health, was admitted Jan. 2d, 1817, under the care of Mr. Lowe, with an aneurismal tumour of the right femoral artery, half way down the thigh. It was the size of a large orange, flattened, not well defined, situated deeply, and painful—pulsation considerable—limb hot—no material interruption to its functions—pulse accelerated—much excitement. He had felt a pulsation for more than two months, but only noticed the tumour a week. Perfect rest, low diet, V. S. to twenty-four ounces, free purging, and an evaporating lotion to the thigh, were had recourse to, and in forty-eight hours after his admission, all pulsation had evidently ceased. The foot, however, was cold and numb, and the toes evinced a disposition to gangrene, though no swelling of the thigh, nor extraordinary diminution of the tumour, were present to indicate bursting of the tumour.

"The treatment now consisted of the application of heat to the limb, and repeated gentle friction. The progress of the case was marked chiefly by very slow sphacelus of part of the foot. At the expiration of four months, the toes and soft parts of the metatarsus had sloughed off, leaving the metatarsal bones dead and protruding, surrounded by a languid and ill-conditioned wound. The man's health had materially suffered by this protracted confinement; he experienced considerable pain in the foot; from long continuance in the same posture, his knee had become permanently bent; and the prospect of recovery was remote and uncertain: all these circumstances rendered amputation not only desirable but necessary, and the leg accordingly was removed below the knee, on April 29th. The three arteries bled freely, and were rather enlarged. The stump healed very slowly, and by granulation alone. The patient's general health gradually improved, and he was at length discharged quite well, undertaking the situation of a book-keeper at one of our principal coach offices, which he still holds with uninterrupted good health. The aneurismal tumour when he left the Infir-

mary, Sept. 2, was diminished two-thirds of its former size, and never was found to pulsate again after its first ceasing."

The above case is not strictly an instance of the *spontaneous* cure of aneurism, for the cessation of pulsation in the tumour, &c. followed starvation, a bleeding to twenty-four ounces, free purging, and the other items of pretty "heroic" antiplogistic treatment. One might just as well talk of the *spontaneous* cure of a pneumonia, after salivation with calomel and opium and the active use of the lancet. We candidly avow that we are not satisfied with the treatment pursued in this case. We do not see the necessity for starting with such sudden and violent treatment as was practised, and no earthly doubt can exist that the four months' suffering from tedious gangrene, the consequent cachexia, and the ultimate amputation, were its unfortunate consequences. God forbid that we should give utterance to any reflections injurious to the character, or grating to the feelings of a brother practitioner. We know the uncertainties of our science and the difficulties besetting its professors, but where we conceive that speaking out would be of benefit, it becomes an unpleasant duty to do so. Aneurism, it should be recollected, depends, in the majority of cases, on a morbid state of the arterial system, and not unfrequently of the heart also. It is obvious that arteries thus altered are weakened, and that gangrene is infinitely more likely to take place in patients so affected, than in those whose circulating system is sound. We put it then to any reflecting man, whether large abstractions of blood, and sudden or violent depleting measures, are not to be avoided under these circumstances by all who wish the welfare of their patients, or are chary of their own reputation. Frequent small bleedings are of service when the loss of blood is required, but large ones are often injurious, always unsafe.

CASE 4. *External Iliac Aneurisms—Bronchitis—Other Diseases—Operation—Death.*

The following case must give rise to some observations.

A man, æt. 63, was admitted under Mr. Daniel, with a large tumour behind and below the right Poupart's ligament, projecting much beyond the level of the adjoining parts, pulsating strongly, very painful, and impeding the motion of the leg, although he had just walked a mile without assistance. The limb was very œdematous—the foot rather numb—the action of the heart irregular, and exceeding the natural standard both in frequency and power—some chronic bronchitis, to which he was subject—health otherwise tolerably good. The disease had commenced seven or eight months previously, but had produced little inconvenience, till within the last three weeks, when its increase had been more rapid, and the pain and œdema had appeared. He was bled to 16 ounces on the day of his admission, and the operation proposed on the next, but he would not consent till the 7th November, (date of admission not stated,) when the symptoms had much increased in severity. The pulse was powerful and averaged 100, the pain very great. During the interval in question he had again been bled to 16 ounces, kept quiet, regulated in his bowels, and treated with an anodyne every night. On the 7th, the Abernethian operation was performed, apparently with dexterity and ease. The remainder we shall give in *ipsissimis verbis* of the reporter.

"The result of the operation, so far as respected the aneurismal disease, was very gratifying; the pain soon permanently ceased; the œdema in three or four days had nearly subsided; the temperature and sensibility of the limb were very little affected, and not the least disposition to gangrene was observed. Unfortunately, however, a severe attack of bronchitis succeeded, to which, notwithstanding every attention, he fell a victim on the eleventh day. He had likewise some inflammation of the abdominal viscera in the neighbourhood of the wound. The pulse was always full and strong, and more irregular than at first: the pulsation of the abdominal aorta and common iliacs was very forcible. He never complained of head-ach, but was much dejected, and prone to gloomy forebodings.

The inflammatory affections were combated by the abstraction of seventy-two ounces of blood at five different times, (which was always much inflamed,) and the application of numerous leeches to the abdomen, and two large blisters to the chest, aided by appropriate medicines and a restricted diet. He had become much better, and was considered by no means in immediate danger, when, on the morning of the eleventh day, in a gentle fit of coughing, he expired. The tumour had not perceptibly diminished, and felt firm and solid throughout.

"The following appearances were observed in the examination of the body.—Traces of rather considerable inflammation existed at the lower part of the abdomen internally, especially on the right side. The ascending colon was strongly adherent to the peritoneum anteriorly, and its coats were diseased. The right psoas muscle was the seat of an abscess of some magnitude, unconnected with any other part. The ligature had been applied one inch and a half from the commencement of the external iliac artery, and about the same distance from the aneurism: it was on the point of being detached. The artery above it was closed, and filled by a firm clot as high as its origin, and every thing about it was in a healthy state down to the seat of the disease. The aneurismal tumour was the size of a cocoa-nut, deeply imbedded in the hollow of the groin, and in immediate contact with the head of the femur, which was slightly carious. Poupart's ligament was tightly stretched across it in front. The upper and posterior part of the sac had given way, and a large quantity of blood was extravasated behind the fascia iliaca. The arterial system in general was much diseased. The opposite external iliac was crowded with calcareous deposits, and the femoral artery of the aneurismal limb had numerous opaque patches, the commencement of a similar state. The ascending aorta was considerably dilated, and its parietes so soft that a slight force ruptured them. A small aneurism about the size of a walnut arose from the right subclavian artery at its origin, of which no suspicion existed during life. An *arteria innomi-*

data was found on each side, the left dividing as the right into carotid and subclavian. *The lungs were universally adherent to the costal pleura, much denser than natural, and the air tubes filled with mucus.*"

* How frequently is one reminded in the details of medical cases, of the Frenchman and his horse! The result of the operation was very gratifying—all was doing beautifully—not the least disposition to gangrene was evinced, and the cure would have been superb, but, "unfortunately," the patient—died. He died, we are told, of acute bronchitis, but not a trace of it can we perceive on dissection, unless "the air tubes filled with mucus" be deemed the anatomical character of that disease. Perhaps an anecdote may help us out of a portion of the difficulty. Not a hundred years ago, nor a hundred miles from this metropolis, a physician was summoned to a patient, whom her medical attendant (an M. D.) pronounced to be labouring under INFLAMMATORY ASTHMA! This new disease was found to consist, on examination, in orthopnea, dyspnea, cough, and the other symptoms of organic disease of the heart, which was manifestly present. Is it possible that the present patient had a touch of the inflammatory asthma?

"I thank thee, Jew, for teaching me that word!"

Certainly he had the symptoms of hypertrophy, and probably dilatation of the heart; accompanied with Winter cough, one of its most frequent concomitants in old persons, though not a syllable is said respecting the state of the organ on dissection. The universal adhesions of the pleura, old ones we suppose, and consolidated state of the lungs, are met with in nine out of ten examinations of patients, dying of diseases of the heart. The "rather considerable" peritoneal inflammation in the neighbourhood of the wound, and abscess in the contiguous parts, were no mean items in the case, and helped to shuffle off the mortal coil, no doubt. So much for the post-mortem examination, but a word or two remains to be said upon circumstances that occurred before the curtain dropt before the scene.

A patient of 68, with chronic bronchitis and suffering from symptoms not un-

like those of diseased heart, appears to us to have been no proper subject for the operation of tying the external iliac artery. Do they keep no stethoscope in the Bristol Infirmary, for auscultation appears to have never been dreamt of? If they will not use the ears with which Providence has endowed them we would earnestly advise the medical attendants to purchase the instrument as soon as may be, and the last edition of Laennec. This patient lost thirty-two ounces of blood from the arm before the operation, and seventy-two after it, making in all one hundred and four ounces from a man of sixty-three, whose age, independent of the aneurism, would almost ensure a diseased arterial system; who suffered habitually from bronchitis; and laboured under irregularity in the action of the heart. Is it wonderful that he should "expire in gentle fit of coughing?"

In order to show that provincial surgeons "are not tardy in following their metropolitan brethren in any *real improvement*," Mr. Morgan mentions a case of "supposed aneurism of the *arteria innominata*," which "seemed a very fair one for tying the subclavian and carotid arteries, according to the principle lately revived by Mr. Wardrop." The patient, however, took a more judicious view of the *real improvement*, than Mr. Morgan, for he refused to submit to its performance, and has since very wisely walked off. Before concluding, we may hint that there are some other *real improvements* which might perhaps be taken under Mr. M.'s patronage; we mean, auscultation in patients aged sixty-three, affected with aneurism and symptoms of thoracic disease.

XXXVIII.

ST. GEORGE'S HOSPITAL.

DISEASES OF THE HEART.

The present season has been and is peculiarly rife in diseases of the heart, diseases that present very marked and distinctive characters, but yet would appear to be ill understood by the mass of the profession. In less than three months, upwards of 10

cases of organic alteration of the heart have been admitted within the walls of St. George's Hospital, half of which have proved fatal during that period, and afforded opportunities on an extended scale, of comparing symptoms with post-mortem appearances. It is a circumstance much to be deplored, that the great majority of these patients had been treated, before their application at the hospital, for affections widely different from that which was the real malady, the fons et origo of their ills. Many had been bled and depleted for inflammation of the lungs. Still more had been made to swallow a farrago of remedies directed against *asthma*, the universal scape-goat for these diseases. The errors to which we are now alluding, were not all committed by practitioners of no reputation, but more than one mistake in the catalogue may be laid to the door of individuals of no inconsiderable eminence. However this is an unpleasant topic, and we gladly pass on to our more immediate province, the details of some of the cases themselves. The reader will find allusions not unfrequently made to the physical signs of the disease, and we trust we may be permitted to add without offence, that the degree of accuracy they confer on the diagnosis of most cases, and of positive certainty on many, is extremely gratifying.

CASE 1.—*Hydrothorax on both sides—Tubercles in Right Lung—Hydrops Pericardii—General Dilatation of Heart, with Hypertrophy of Left Ventricle—Pus in Polypi.*

J. Snowden, æt. 34, a painter, admitted May 20th, under the care of Dr. Seymour.

Face puffy, sallow, and leuco-phlegmatic—cellular membrane of scrotum and legs œdematous—some little fluid in the belly. Breathing hurried and short, but not painful—dyspnœa on exertion or ascent—orthopnœa—difficulty of lying on left side—broken sleep and frightful dreams—sense of beating and oppression at the heart, the action of which is felt by the hand to be rapid and tumultuous, but apparently not close beneath the ribs,

as if there was fluid interposed. Pulse 140, not hard nor bounding, but a little full and sharp—tongue moist, with whitish-yellow fur on its surface—appetite indifferent—urine scanty—bowels open.

Was suddenly attacked two months ago, whilst walking against the wind with shortness of breath and fluttering of the heart. Before this, however, he noticed that his face was becoming swollen. About six weeks ago his feet swelled, when his breathing became easier—body has swollen within the last few days. Has not been able to follow his employment since the commencement of the present illness, but has not been uniformly bad all the time. Has had several attacks of the colic of his trade, and been almost always ailing—never laboured under rheumatism. Has been accustomed to drink spirits.

V. S. ad. 3x. vesp. Cras mane, Elaterii gr. i. Hyd. Submur. gr. ij. 11. fl. pil.

Next day a more particular examination was made, and the liver, especially its left lobe, felt to be enlarged. Dr. Seymour concluded from the symptoms above detailed, that the heart was dilated, whether with or without hypertrophy of its walls, he could not at that time make up his mind; and that there was hydrops pericardii, with fluid in the pleuræ, and old disease in the lungs. On applying the stethoscope in the region of the heart, the action of its right chambers was heard rather loud and clear, without impulsion, over a considerable space. The left ventricle, on the contrary, had not only extent of pulsation, but more impulsion than natural. It was curious that the ventricular systole was not directly communicated to the instrument, but produced a kind of oscillary movement, as if there were fluid interposed between them. The inferences drawn from the above indications were—general dilatation of heart—dilatation with hypertrophy of left ventricle—hydrops pericardii. There were also reasons to believe from the auscultic phenomena that the lower lobes of both the lungs, especially the left, were irrespirable, either from water in the pleuræ or consolidation of their texture, probably from both causes. The pulse at the wrist was rather jarring but not full, indeed it was the reverse.

R Potass. Acet. ʒj.—Vin. Col. ʒss. Aq. Menth. Vir. ʒx. Tr. Scill. m. x. M. ft. haust. bis quotid.—Potus super-tartrat. potass. ad ʒj. in die. Rep. Pil. Elater. alternis auroris.

We shall not take up our reader's time by the daily nor even the weekly details of this case, but shall merely allude to the more important events that marked its progress. On the 31st (little alteration on the whole had taken place) he was ordered *pil. hyd. gr. iij. pil. scill. gr. j. pulv. digital. gr. j. ter die*, and on the 1st of June a blister was applied to the chest, in consequence of the cough which was gradually growing on him, accompanied with expectoration of much frothy mucus. On the 3d, the effusion into the limbs being greater, and the cough severe, he was bled to ten oz. and part of the blood shewed the buffy coat. The pulse was weak, and oppressed. In the evening he took the *bolus hydargyri c. scill.* On the morning of the 4th was bled again to twelve oz. and took the *bolus*, a second time that evening.* On the 6th, he appeared in a critical state—the depression was extreme, and a lurid blush with tumor looking like something intermediate between erysipelas and carbuncle, occupied the nose and cheek on either side of it. The former medicines were discontinued, and *quinine draughts* with *opiates* substituted for them. The patient gradually rallied; the erysipelas, if such it was, passed away by degrees; and on the 11th, the symptoms were much the same as they had been before their recent exacerbation.

The sputa, however, now began to assume a lumpy and suspicious purulent appearance, the skin was always cold, the pulse very shabby. He was noticed to be constantly dozing in the sitting posture, his short sleep being broken every now and then by a convulsive start. The treatment consisted in *cabbage leaves* to the legs, and an *opiate* with the *ozymel of squills* and *spirits of nitric ether* twice daily; for the quinine, appearing now to disagree, was left

off after the 21st. He was bled to ten oz. on this day. Emaciation was making progress—the effusion into the external, and probably also into the internal parts disappearing, and the strength declining—but what was singular, the cough subsided, and the expectation about this time almost disappeared. On the 9th July we find him taking port wine and astringents, diarrhoea with aphthæ in the mouth having supervened, but, in spite of all the support that could be given, he sank on the 16th. On applying the stethoscope to the præcordia, during the last week of his illness, the impulsion of the heart was communicated more directly to the instrument, and the peculiar oscillatory movement, noticed on the former examination, was gone. This circumstance seemed to shew that the hydrops pericardii had materially diminished. The lungs after the first week had not been examined by auscultation, as the patient had evidently no chance of recovery, and it was not wished to disturb him unnecessarily.

SECTIO CADAVERIS. Body emaciated to an extreme degree.

Thorax. Two pints or more of yellow serum, with shreds of lymph in left pleural cavity, and a few slight adhesions anteriorly above—rather more serous effusion in right cavity, with strong adhesions in front and above, so arranged as to confine the fluid in its inferior portion. Pleuræ on either side exhibiting arborescent injection of their vessels, and patched with old lymph in various places.

Left lung œdematous throughout upper lobe, but crepitating well—lower lobe more engorged, and its inferior half so consolidated as to sink like lead in water—thin frothy fluid in bronchi, the mucous membrane which reddened. Great part of right lung, especially the upper lobe, infiltrated with tubercles, collected together in circumscribed patches, with condensation of the neighbouring parenchyma. One of these tubercular masses particularly noticed between the upper and middle lobes, and displaying in its centre a vomica large enough to contain a small egg—some other smaller vomica at the apex of this lung. Lower portion of the lung resembling that of the left, and

* This bolus is a hospital formula; it consists of twenty-four grains of blue pill and six of recent squills.

sinking, like it, heavily in water—about the middle of the lung a little diffuse sup-puration.

Pericardium containing a couple of ounces of bloody serum—pericardium itself injected with bloodvessels, but not thickened or spread with lymph.

Heart very large—auricles and right ventricle passively dilated in their cavities—left ventricle both dilated in its cavity and hypertrophied in its wall—valves and great vessels healthy. Heart filled with loose coagula—near the apex of left ventricle, a small mass of what looked like lymph, surrounded and blended with the black coagula, and containing in its centre a creamy fluid, having all the general properties of pus. In the interstices, between columnæ carneæ, numerous small compact masses of lymph, most of them, when broken, found to contain in their centre the same sort of purulent fluid as the larger one.

Abdomen. Liver enlarged, and as hard almost as cartilage—its appearance, upon section, something between that of nutmeg and granite—pancreas excessively hard—kidneys remarkably diminutive, and the left containing one or two cysts, filled with dirty serum.

Head not examined.

Whether the tubercles in the right lung were formed, in whole or in part, between the 20th of May, when the patient was admitted, and the 15th of July, when he died, is a question which we shall not pretend to moot. That the vomica appeared in that interval, we think there can be no doubt, from the general symptoms and the stethoscopic indications in the first instance. It will scarcely fail to be perceived, that the tubercles were not of the common scrofulous character—that they were agglomerated into masses—in fact, that they presented a specimen of the “tuberculous infiltration.” The largest vomica, too, were not at the apex of the lung, as in phthisis pulmonalis, but in the centre, where the mass of infiltration was greatest between the upper and the middle lobes. Is it possible that this is the species of tubercle developed by inflammation? We know of some curi-

ous facts on this subject, but it is yet involved in mystery and difficulty. We mentioned that there was pus in the lymph or fibrine deposited in the ventricle. We do not ourselves imagine that it was the result of inflammation; on the contrary, we conceive it to have been produced by some decomposition of the polypus itself.* The patient, it should be recollected, was very long in dying. Dr. Seymour possesses a most beautiful drawing, by Mr. Perry, the artist, of the apex of the ventricle, with these abscesses (to use an improper term) in situ.

Dr. Seymour remarked, in his clinical lecture, that, on the admission of this patient, it was evident he laboured under an incurable state of disorganization of the heart, together with chronic disease of the lungs, and the symptoms were so severe as to threaten almost immediate death. The dropsy of the cellular membrane was the result of these. All that could be done for such a state of things was to alleviate the symptoms of distress, and endeavour to procure the absorption of the fluid which was producing so much oppression. For this purpose, small bleedings were had recourse to, not only to relieve the congestion in the lungs, but likewise to promote the absorption of the fluid. The elaterium was used principally to empty the cellular membrane, through the medium of increased evacuation of fluid from the bowels, for which purpose it is the most powerful of all the remedies we possess. The effect was produced in some degree, the fluid being diminished, and corresponding comfort, as more quiet sleep, more facility of lying in the horizontal posture, produced. A low

* On looking at Laennec's work, we find that he has given a very accurate description of these bodies, under the term of *globular excrescences*. All the patients so affected, whom he had seen, have remained “in a dying state for several days or even weeks.” He does not imagine that they are formed by inflammation. The whole passage is very interesting, and we refer our readers to pp. 668 *et seq.* of Forbes' translation, third edition.

attack of inflammation having occurred, small bleedings were again had recourse to, with mercury and squills, and the relief appeared to be great, when he was attacked with erysipelas and great depression of strength. The medicines were obliged to be changed, but, on the subsiding of the erysipelas, the former plan was repeated, until the symptoms of weakness rendered it improper. The first bleeding was employed with great caution, and only repeated from the great relief experienced and expressed by the patient, whose respiration became, for a time, greatly relieved. To those who witnessed this case, it appeared manifestly to afford decided temporary comfort.

CASE 2. Peripneumony on Left Side—Encysted Effusion into Left Pleural Cavity—Passive Dilatation of the Heart.

Patrick Gilon, æt. 43, a hawker, admitted, June 24, under the care of Dr. Chambers. He gave the following account of his complaints both present and antecedent, an account calculated to deceive the enquirer.

Pain in the left side of the chest, increased on deep inspiration—imperfect expansibility of that side—difficulty of lying in any position, except on the affected side—a little cough, with expectoration untinged with blood—occasional pains “all over him”—no œdema of the legs—pulse very shabby—urine high-coloured—bowels confined.

Spat blood last Winter, to the amount of two quarts at one time, but whether discharged by vomiting or coughing he cannot distinctly say. Present illness began only a fortnight ago, with general pains and cramps, together with the pain in the left side of the chest and the cough. Knows no cause for his complaint.

There was little here to indicate heart disease, much to establish peripneumony on the left side.

V. S. ad 3xvj. Haust. salin. cum Potass. sulph. 3j. Alis horis. Dieta parcissima.

The blood drawn did not seem to have flowed well; it was not cupped. The pain in the chest was relieved but not removed. The bleeding was repeated to

ten ounces with more relief, and on the 26th, there was no pain on taking a full inspiration, although there was some in the left side without it—cough rather frequent and short—expectoration of frothy consistence mixed with greenish, clear, muco-purulent matter—pulse soft, irregular, and inclining to intermit.

The lower half of the left lung afforded only bronchial respiration, and the sound over the same extent was extremely dull on percussion, shewing that the lung was consolidated, and probably hepatized for that extent.

Emp. canthar. lat. sinist. R. Cal. gr. ij. Op. gr. ss. ter die. H. sal. sine pot. sulph. (It purged him.)

29th. Has pains all over him especially in head and left shoulder—pain on deep inspiration or coughing in lower part of left side and epigastrium—cough troublesome, but not more so at night than by day—expectoration not great in quantity, clear and chiefly frothy—pulse rapid and frequently intermitting. By auscultation: respiration heard louder than natural all over right side, and especially under right clavicle; respiration bronchial throughout upper parts of left lung, but is gradually obscured and finally lost in the lower lobe. This showed that the lower lobe was almost totally impervious to air, and the upper only receiving it in the larger bronchial ramifications. The patient progressively improved till the 6th, when in consequence of the mouth being slightly sore, he only took the calomel and opium at night, with a dose of castor oil every other morning.

On the 10th of July he complained of violent and frequent action of the heart in epigastrio, and of the vessels in the neck—pulse very small and quick—urine scanty and high-coloured—bowels confined. Dr. Chambers now suspected organic disease, most probably dilatation of the heart, and ordered a belladonna plaster to the præcordia a scruple of the compound senna powder every morning and camphor mixture with half a drachm of tincture of hyosciamus thrice daily. The former medicines were discontinued. Some few days after this, on examining the heart with the cylinder, the contractions of the

auricles and ventricles were heard over a considerable space, with slight and but a slight impulsion in the left ventricle. The sound was clear, the actions of the chambers were at times irregular. These signs appeared to indicate *passive dilatation of the cavities of the heart—dilatation of the left ventricle, with perhaps slight hypertrophy of its parietes.*

We need scarcely pursue the details of the case; suffice it that we find dyspnoea, œdema of the legs, and puffy face, shortly make their appearance—that the cough and expectoration diminished—but the pulse grew weaker and more decidedly intermitting. On the 13th he was ordered the *sp. æth. nip.* and on the 15th, being gripped by the senna, *rhubarb* and *aromatic confection* were substituted for it. On the 16th the latter was omitted also, and an *opiate* with *cardamoms* prescribed.

On the 17th, he suddenly became worse, and indeed appeared to be dying. He required to be propt up in the sitting posture, inclining to the left side—the face and extremities were cold and blue—the breathing rapid and oppressed—the pulse at the wrist almost imperceptible—the conviction that of approaching dissolution. No respiration was detected by the stethoscope in the lower part of the left side of chest, where fluid appeared to be effused. Warm wine and water, aromatic and opiate confection in camphor mixture, and compound æther mixture, were successful in reviving him from this state of alarming prostration, and he continued from the 18th to the 22d, almost in as comfortable and quiet a condition as before the late attack. On the 22d, the bowels being rather confined, he was ordered to omit the opiate confection, and castor oil was prescribed for the next morning. When that arrived, however, he suddenly became worse, and died in the course of a very few minutes.

SECTIO CADAVERIS. Body much emaciated.

Thorax. No fluid and only some old lax, cellular adhesions between pleuræ on right side. Pleura costalis on left side much thickened and closely adherent over upper lobe of lung to pleura pulmonalis, except in one part, where a small circum-

scribed cavity was left between them, containing a little fluid. Over lower lobe, a much larger circumscribed cavity between pleuræ, in which was a pint and a half of bloody fluid. Pleura pulmonalis here coated with layers of lymph, chiefly ancient.

Whole lower lobe of left lung consolidated by previous inflammation; lower lobe imperfectly crepitous, engoué with blood, easily lacerable, and presenting a few scattered, crude tubercles. Right lung generally gorged with blood, but crepitous, and swimming in water—some scattered crude tubercles in upper lobe.

Pericardium containing little fluid.—Heart much dilated in its cavity, and walls of right chambers flabby in the extreme—left ventricle solid to the grasp, its cavity enlarged, its parietes increased in thickness rather than diminished, but not of bright, fleshy, muscular colour. Valves sound—lining membrane of heart and great vessels tinged of dark colour by the blood, which was in quantity, and loosely coagulated.

Abdomen contained a little clear serum, but its contents were universally sound.

Head not examined.

The family likeness between the two preceding cases is not obscure. Both were examples of passive dilatation of the heart, with slight increase of substance in the walls of the left ventricle—both shewed a disposition to tubercular deposits in the lungs—both afforded specimens, the latter far the best, of the circumscribed pleural effusion, of Bayle and Laennec. The differences between the cases will be readily appreciated by the reader, especially the greater quantity of dropsy in one case than the other, and the fact, perhaps explanatory of the circumstance, of liver and kidney affections in the former, but not in the latter. Our limits oblige us to stop, but in a future report we shall detail some cases of active enlargement of the heart, or hypertrophia with dilatation.

XXXIX.

EDINBURGH ROYAL INFIRMARY.*

I. TEMPORAL ANEURISM FROM ARTERIOTOMY.

Small aneurismal tumours of the temporal artery are by no means unfrequent after arteriotomy, but if treated in an early stage they are almost always curable by pressure. It would seem that the divisions of the temporal, and indeed of the other arterics of the scalp, are peculiarly liable to dilatation, whereas, in the extremities, especially the lower, the veins are most commonly affected. These two sets of vessels are placed under somewhat similar circumstances with regard to the circulation, which is, *cæteris paribus*, more feeble in both, than in arterics or veins elsewhere. Putting, however, hypothesis aside, we shall notice a case of aneurism of the temporal artery, where compression failed, and excision of the tumour was performed.

The patient was a young man, 23 years of age, admitted on the 8th of December, with aneurism of the anterior branch of the temporal artery, the size of a nut, and of livid colour. It had followed arteriotomy practised about three weeks previously. Compression, by means of a hard compress, being tried without success, the tumour, with a small portion of the surrounding integuments, was removed by an elliptical incision, the inferior extremity of the artery tied, and the wound dressed in with lint. Healthy granulations followed, and on the 2d of January the patient was dismissed cured.

Dr. Ballingall believes that, in a case like this, division of the artery above and below the tumour, with subsequent compression, would be equally efficient with excision, and speedier in its results. We may mention in this place the particulars of a case of varicose veins of the right leg, successfully treated by caustic in the manner recommended by Mr. Mayo. The affection was of six months' standing, the veins below the knee much swollen, and attended with

a good deal of oedema. Repose and laxatives having been premised, Dr. Ballingall applied the caustic paste over the vein above the knee, without any very sanguine hopes of success. The paste was allowed to remain for seven hours, then removed, and an emollient poultice applied. In "ten or fourteen" days the eschar separated, and the trunk of the vein lay exposed to the extent of upwards of an inch in the bottom of the wound; it could also be felt hard and swollen for an inch below, and two or three above the site of the eschar. The denuded portion, although black, did not slough, healthy granulations gradually sprang up and covered it over, and in something less than a month from his admission the patient left the house. The sore at this time was cicatrizing rapidly; "and, what was remarkable, although the principal dilatation of the vein immediately below the knee did not appear to be much diminished while the limb was at rest, yet no sooner was it put in motion than the blood began to circulate freely through the collateral veins, and the swelling to disappear."

We fear that the prospect of permanent relief, for *cure* there was none, is not very brilliant in the present case. Our opinions on the caustic treatment of varix have already been expressed; and having hitherto seen no reason for a change, we need not repeat them again. By the bye, Mr. Mayo is not fairly the inventor of the method, such as it is, for we learn from an eminent surgeon of this town, that he has seen the caustic potass employed, and made use of it himself, many years ago. In his experience it was safe, but on the whole *not* successful.

II. DISEASE AND REMOVAL OF THE BONES OF THE CRANIUM.

Every surgeon must have witnessed the comparative impunity with which large portions of the cranial bones may be removed in cases of chronic disease. We have seen nearly the whole of one parietal bone taken away by the trephine and lever in a case of scrofulous caries, and that with scarcely an untoward symptom. Dr. Ballingall refers his readers on this point to the remarkable

* Dr. Ballingall's Clinical Lecture.

case detailed by Saviard, of a woman in the Hôtel Dieu, "who underwent successive exfoliations of the cranial bones to such an extent that the pieces, when put together, resembled the skull-cap as it is sawn off in dissections." Nature seems to make up her mind to suffer an incredible amount of injury provided it be gradually inflicted. The following are interesting cases, because they are of frequent occurrence in practice.

Case 1. James Thorn, ætatis 13, admitted on the 10th of December under the care of Mr. Liston, with an ulcerated opening in the scalp immediately over the junction of the parietal bones towards their back part. Across this opening there passed a small bridge of integument, so as to divide it into two, and at the bottom of the sore the matter was distinctly seen rising and falling in synchrony with the pulsation of the brain. On introducing a probe, the bone was felt bare for a considerable distance round the wound on all sides; the health had not suffered; there was no pain of head; pupils quite sensible, but rather dilated; tongue white; appetite good; pulse 74, and somewhat irregular. He stated that two years and a half ago he received a blow on the head from a stone—that a swelling formed which opened in three days after the accident, and gave issue to a small quantity of blood—and that, since that time, several portions of bone had come away.

On the 14th, an incision was made in the scalp, and the bone discovered extensively bare, but nothing further was done until the 26th, when a circular portion of bone was removed, in order to give a free exit to the matter. No bad symptoms followed, the wound assumed a healthy aspect, and about the middle of January the patient was dismissed, with instructions to return and show himself occasionally. Upon the last examination the wound was cicatrizing rapidly, and the boy's general health was good.

The next is a more severe example of these affections, but it offers equally, if not more decisive proof of the powers of art in arresting their progress.

Case 2. Henry Lee, æt. 13, was admitted on the 23d of December, with an opening the size of a shilling in the scalp, situated over the junction of the occipital with the parietal bones, and the sagittal suture. The bone was black and bare for a considerable distance round; the discharge was thin and offensive; no pain in the head; pupils dilated, but perfectly sensible; pulse 104; tongue moist; health and appetite good. Over the sternum was a fistulous opening also leading down to bare bone. Twelve months previously he had received a blow upon the head, and an abscess ensued which was opened a few days after the accident. Pain in the head succeeded this, and in about a week he had a fit, and this was followed by a discharge of matter, which in its turn relieved the pain. After this he had a great number of fits, all of which were followed by a discharge of pus. Since the 17th of September he had had no fit. The abscess in the sternum had formed and was opened much about the same time as that on the head.

On the 23d, a crucial incision was made, and a piece of bone, the whole thickness of the cranium, found loose and removed. No bad symptom whatever succeeded, and on the 27th, he was ordered animal food, and a few days afterwards four ounces of wine daily. From this time his cure went on progressively, and, on the 10th of January, he was made an out-patient. The fistulous opening over the sternum was touched with the actual cautery, and ultimately healed.

"Both these cases afforded examples of the beneficial interference of art in removing large portions of the cranial bones when in a state of disease. The contrast between such cases and those of recent injury is very remarkable, for, while in the latter, every experienced surgeon dreads the extensive exposure of the dura mater, yet he knows that in cases like those I have just detailed, where the dura mater has been for some time detached from the interior of the skull, and has become covered with granulations, the carious or necrosed bone may be removed with freedom, and often with advantage."

XL.

**ROYAL WESTMINSTER
OPHTHALMIC HOSPITAL.**

Mr. Guthrie has been lately giving a trial to the oleum terebinthinæ in cases of inflammation of the iris and choroid coat, on the plan recommended by Mr. Hugh Carmichael, of Dublin, and with a nearly analogous result. In some cases it has succeeded admirably; in others it has been of little service; and in some, unequal to the cure of the complaint. The irritation produced on the bladder and kidneys, is occasionally severe, after the exhibition of a very small quantity, whilst, much larger doses are borne by others with a perfect immunity from it. We have selected six cases illustrative of these points, and only premise that the turpentine has always been given in a solution of gum Arabic and nitre, and the trial has been made in common, rheumatic, or arthritic, and syphilitic inflammations. Mr. Guthrie thinks the remedy most valuable in the arthritic inflammations, which do not yield to mercury alone, but seem to be amenable to the conjoined effects of it and the turpentine, or to the latter alone.

Case 1. Mary Tyler, æt. 16, admitted July 3d, 1829, having iritis of the right eye, which has been inflamed for the last week. Says that she has not long recovered from an attack of inflammation of the same kind in the left, for which she took mercury. The pupil is irregular, and the colour of the iris changed; the conjunctiva and sclerotica are not much affected; the vessels of the latter form a zone of a pink colour round the cornea; the discharge of tears and intolerance of light are very trifling and the cornea is quite transparent; her sight is however very much impaired. She complains principally of the pain over her brow which becomes very severe when she is in bed, so much so, that she has had very little rest since the commencement of the inflammation. There is a lichenous eruption on her body looking very much like the syphilitic, but she denies ever having had that disease, and says, that the erup-

tion appeared about four months back, immediately after her recovery from the small pox.

Capiat Ol. Terebinth. 3i. ter die.

July 4th. The medicine has produced a very decided and beneficial effect; the pupil is a little more dilated and quite circular, and she suffered much less pain than usual last night; the inflammation of the conjunctiva and sclerotica remain just the same. 8 p. m. The pupil is considerably dilated, and she says that she can see much better; the sclerotic inflammation is also somewhat diminished.—Rep. Ol. Terebinth.

July 5th. Slept quite free from pain last night, but early this morning she was sick and complained of pain in her forehead; these unpleasant symptoms went off after taking some warm tea. The inflammation of the sclerotica is a little increased, but the iris remains the same; her bowels rather confined.

Pulv. Jalap. Comp. 3i. statim. Rep. Ol. Terebinth.

July 7th. All traces of the inflammation are gone except a very slight tinge on the sclerotica, and she has perfectly recovered her sight; it was, however, thought advisable to continue the medicine for a day longer. The eruption remains exactly the same as when she was admitted. In this case the oil of turpentine did not cause the least pain or difficulty in making water.—Case by Mr. Taylor.

Case 2. Sophia Prout æt. 27, admitted July 13th, 1829. Has had a speck on the cornea for 20 years, in consequence of inflammation. There is slight inflammation of the sclerotica accompanied by shooting pains in the brow, which have continued for three weeks—sight impaired.

Ol. Terebinth. 3i. ter in die sum.

July 15th. The shooting pains are a little relieved, but the inflammation is much the same. The first doses of turpentine caused a good deal of nausea and vomiting; she continued, however, to take it, and without any unpleasant effects.—Rep. Med.

21st. She has taken the oil of turpentine regularly without suffering any sickness or strangury. The inflammation of

the sclerotica is nearly gone, and she does not complain of much pain.—Cont. Med.

28th. There was a slight relapse on the 23d, but she has continued to take the turpentine, and is now quite well, the inflammation having entirely disappeared, and the shooting pains gone. The speck on the cornea of course still remains, and she is to have a drop of the wine of opium in the eye every morning.—Case by Mr. James.

Case 3. John Perkins, of Chelsea, æt. 22, a carpenter, was admitted July 21st, 1829, having sclerotic and internal inflammation of the left eye. Says that he was affected with gonorrhœa last November, and a week afterwards applied to a surgeon at Greenwich, who gave him some powders and pills to take, which at first produced vomiting and purging, and ultimately affected his mouth. This treatment was continued about a fortnight, when the running ceased. In February he caught cold, and shortly afterwards observed an eruption over the whole body—for this he took a few powders; the eruption gradually disappeared in the course of two months, with the exception of that on the legs, where a considerable number of scaly blotches, of a copper-coloured base may still be seen. In the beginning of May his left eye became inflamed, and he applied to this hospital: he was cupped and the organ shortly afterwards got well again.

The present inflammation has been gradually increasing for the last week; there is a general redness over the sclerotica of a pink colour, and more particularly marked near the cornea, where the injected vessels are very numerous and minute; there is a slight alteration in the appearance of the iris, but the pupil is regular; cornea less bright than usual; complains of deep-seated pain of the eye, pain also on the eye-brow; intolerance of light and indistinct vision.

App. Cucurb. c. Ferro ad Temp. ad ʒxvi. Ol. Terebinth. ʒi. ter die.

July 23d. Has only taken two doses during the day. General vascularity much less, and the pink colour has almost dis-

appeared; pain considerably less, and the light more supportable; sight is more distinct, he has neither experienced any nausea or purging, but the urinary secretion has been increased.—Rep. Med.

25th. Is much better; the redness has almost disappeared; there are merely a few striæ on the upper part of the sclerotica; pain very slight, and only occasional. The medicine appears only to have acted on the kidneys.—Rep. Med.

28th. The inflammation has returned in some degree; light is less supportable, and there is also pain in the eye and forehead.—Rep. Med. ter die.

30th. Considerable amendment; no unpleasant effects from the medicine; tongue clean.—Rep. Med.

August 4th. The inflammation has subsided, and there are now only two or three injected vessels of the conjunctiva to be observed. He says that he feels no inconvenience from the eye, except when very much heated, when it feels rather weak. The blotches on the leg have greatly diminished, and on the right one have nearly disappeared.

7th. Remains well.—Case by Mr. Fisher.

Case 4. Ann Dugdale, æt. 26, admitted July 14th, 1829, with syphilitic iritis of the left eye. The inflammation commenced a week ago with very severe pain over her brow, which is worse at night—great intolerance of light. The colour of the iris is changed, and the pupil irregular; cornea rather muddy; sclerotica much inflamed.

Cap. Ol. terebinth. ʒj. ter die.

July 15th. The pain over the brow and inflammation remain in the same state as yesterday, and the zone round the cornea is well marked. The turpentine has not acted on the bowels or urinary organs.—Rep. Med.

16th. Pain rather relieved; the secretion of urine increased, accompanied by scalding.

Rep. med. Infus. lini. pro potu ordinario.

17th. Much worse in every respect; has taken her medicines regularly, and

it has caused much irritation of the bladder and slight purging.

V. S. ad 3x. R. Cal. gr. ij. Opi, gr. 4. ℥. ft. pil. ter die sumenda. Illinatur fronti. Ung. hydrarg. 3ss. ter die.

18th. She felt immediately relieved after the bleeding, and the eye looks considerably better.—Rep. pil.

22d. The inflammation is disappearing fast; is quite free from pain; pupil still continues irregular; her mouth rather sore. Rep. pil. Empl. belladonnæ fronti.

23d. Eye considerably better; mouth very sore.

Omitte pil. Extr. coloc. c. gr. v. h. s. s. Magn. sulph. 3ss.

24th. The belladonna plaster was repeated last night, and the eye is less inflamed. Rep. pil. et magn. sulph.

25th. The inflammation is now very trifling, but the pupil continues irregular; Gutt. belladonnæ om. man. Her mouth is still very sore. Gargarisma aluminis, sæpe utend.

Aug. 13th. Discharged cured, the eye having resumed its natural appearance.—Case by Mr. C. H. James.

The turpentine failed in this case, and mercury was had recourse to with success.

Case 5. Wm. Chalford, æt. 18, admitted July 21st, 1829, having syphilitic iritis of the left eye. Says that he had sores on his penis some time ago. There is now a copper-coloured eruption (lichen syphillicus) very plentiful on his back and arms, accompanied with nocturnal pains in his shin bones; he has no sore throat, and has not taken any mercury. His eye has been inflamed the last three days, and he suffers great pain round the orbit, especially at the lower part; his sight is also considerably impaired. The iris is a good deal changed in colour and is immoveable; pupil regular; conjunctiva inflamed, and the vessels of the sclerotica are of a pink colour and very numerous round the margin of the cornea.

Ol. terebinth. 3j. ter die.

July 22d. Has taken his medicine regularly; makes water more frequently but without any pain; urine is high-coloured. He suffered a good deal of pain in the eye

last night, but is now quite free from it; the iris is not so much discoloured, but the redness of the conjunctiva and sclerotica is just the same as yesterday. Says that the medicine makes him feel sick. To continue the turpentine.

23d. The pain round the orbit as bad as ever, but the inflammation is less, and he sees better. Complains of great pain in the glans penis on making water; urine bloody and turbid. To repeat the medicine and drink plentifully of linsced tea.

24th. Pain round the eye not diminished; iris is becoming irregular and more changed in colour, with small globules of lymph adhering to its surface. He has frequent desire to make water; urine bloody, on voiding which he suffers extreme pain in the region of the bladder, extending along the urethra to the glans penis. Ordered to lose 3x. of blood from his temple, and continue his medicine.

25th. Would not submit to be cupped, and did not take the turpentine yesterday. He sees better, and does not complain of any pain; the redness is not so great. The strangury continues severe. To drink plentifully of linsced tea, and continue the turpentine.

26th. Only took two doses yesterday. The eye remains much the same.

Rep. ol. terebinth. Pulv. jalap. c. 3j. statim.

28th. Has neglected to take the turpentine since the 25th. He has, however, no pain in his eye, and has quite recovered his sight. The eruption is of a much lighter colour. The belladonna in solution to be dropped into the eye. Pulv. jalap. c. 3j. The urinary organs continue highly irritated.

30th. The strangury is less severe. The eye continues free from pain, but the redness has not diminished; iris has nearly regained its colour, and is irregular. To commence the turpentine again.

Aug. 8th. He continued the turpentine till the 1st of August, when it was omitted, and the drop of belladonna has since been applied to the eye daily. To-day the eye is more inflamed, but without any pain. Rep. ol. terebinth.

12th. Has continued the medicine regularly up till to-day, and is now nearly well, having no pain, and the redness almost disappeared; iris of its natural colour, and the pupil regular.

13th. Discharged cured.

20th. Returned with a slight degree of redness around the cornea; the lower edge of the iris a little irregular. Apply the belladonna—Pulv. jalap. c. 3j.

22d. Discharged.

In this case the turpentine arrested the progress of the inflammation several times, and has removed the complaint for the present; the eruption has disappeared, but Mr. Guthrie says he does not think the removal of the iritis or of the eruption will be permanent.—Case by Mr. Foote.

Case 6. James Kell, æt. 25, admitted with syphilitic iritis, July 25th, 1829.—Complains of great pain over the left eye-brow; accompanied by an itching of the eye, slight intolerance of light, and discharge of tears; his sight too is a little impaired. The conjunctiva and sclerotica are both considerably inflamed; the iris is of a darker colour than natural; pupil dilated, fixed, and regular; cornea quite healthy. The inflammation first appeared a week ago, ushered in with great pain.

R. Vini rad. colchici. 3j. Pulv. ipec. comp. gr. x. Aquæ, 3iss. M. ft. haust. h. s. s.

July 29th. Did not come to the hospital for his draught, and has therefore only taken one dose; the pain is however much relieved, but the redness seems increased.

C. cu. ferro. ad 3xiv. Pulv. jalap. comp.

30th. The inflammation is a good deal diminished, and he is in no pain; the iris is in the same state as when he was admitted.

Haust. colchici c. opio, h. s. s.

31st. Much worse to-day; inflammation of the sclerotica considerably increased; iris irregular, and the pains over the brow returned. He says that he had a chancre last Christmas, which was cured by mercury, and that nothing more of the venereal disease showed itself till seven weeks back, when an eruption (lichen syphiliticus) appeared on his arms and legs, where it is even now visible, and very characteristic.

Capiat ol. terebinth 3j. ter die. Pulv. jalap. c. 3j. statim.

Aug. 1st. The powder acted well on his bowels before he took any of the turpentine; after the second dose, however, he experienced great pain in making water, and since the third dose it has been almost unbearable. The inflammation is rather worse, but the pains over the brow are relieved. To take the turpentine only twice a day, and to drink plentifully of linseed tea.

Sulph. mag. 3j. statim.

2d. Says that his sight is improved, but the pains continue very severe over his brow. Only took one dose of turpentine yesterday, as the strangury was so very bad.—Rep. ol. tereb. bis die. Pulv. jalap. c. 3j.

3d. The difficulty in making water, attended with pain and dripping, still continues. The inflammation of the sclerotica is a good deal diminished, but the pupil continues very irregular; the pain over the brow quite gone.

Rep. ol. terebinth. Infus. lini. cu potass. nitrate sæpe.

4th. Much the same as yesterday—only took one dose of turpentine.—Rep. medicamenta.

5th. Not so well; some degree of pain over the brow with increased lachrymation. The ol. tereb. gives him so much pain that he is to omit it to day and take a purgative.

7th. Took three doses of the turpentine yesterday, but has since passed blood after making water. The inflammation has very much diminished; the iris acts, and the pupil is more circular.

Omitte ol. terebinth. Pulv. jalap. comp. 3j. statim.

11th. Has taken the turpentine every other day, although suffering a good deal of pain and difficulty in making water. The redness of the sclerotica has almost disappeared, and he has not suffered any pain in the eye or over his brow for the last two days; the pupil is quite circular, but the iris is rather sluggish in its motions.—Rep. med.

13th. Nearly well.

18th. Discharged cured.—Case kept by Mr. Taylor.

XLI.

A LETTER TO JOHN BULL ON THE DISSECTION OF HIS BODY. By GRACCHUS.

We are daily more and more convinced that the rejection of Mr. Warburton's bill will be the destruction of all rational hopes of a better one in the ensuing session. Its suspension has excited the passions and the clamours of the senseless multitude, the designing knaves, the enemies of medical science, and, perhaps worse than all, the speculations and propositions of fools. The letter before us is a pretty specimen! The writer assumes that the only methods which either the advocates or opponents of anatomy can propose, are the following:—

"1st. Forbidding dissection altogether, and sending all students to foreign lands for instruction. 2. Giving up the bodies of suicides and all persons executed or otherwise dying whilst suffering the punishments of the law. 3. Making use of the bodies of surgeons, either with or without those of the preceding class. 4. Giving up the bodies for dissection of those who die unclaimed in the workhouses. 5. Legalizing the sale of dead bodies. 6. Legalizing exhumation. 7. Passing my bill."

Of the 7 propositions, the 3d is the only feasible one—though, as things now stand, there is some danger of the first proposition being verified! We doubt much whether Gracchus be in his right senses—for really many of his arguments smack of Bedlam. Thus he declaims in good set terms against the plan of giving up unclaimed bodies for dissection, averring that "this alternative has something very horrible on the face of it to any man who feels and reverences the spirit of the English constitution!"—He deprecates the said plan as "a stigma on poverty," and talks about the feelings of the dying and friendless poor, with wonderful sympathy! Poor man. He evidently has never been at the bed-side of the dying, or he would know that not one in fifty has the least idea of death up to the very last moment of his existence. But let us see

the remedy which Gracchus proposes—in other words, read "my bill."

"Whereas, it is expedient for the better preservation of the health of the people of these realms, that medicine and surgery be encouraged; and whereas, it is established, by the testimony of the learned of all nations, that these sciences can only be acquired or improved by the constant dissection of dead human bodies, Be it enacted,

"1. That it shall not be lawful to inter in any vault, church-yard, or other place of public sepulture, the body of any man or male child, dying in the United Kingdom, until the said body shall have been opened by a physician, surgeon, or apothecary.

"2. That this examination shall be made in the premises of the said physician, surgeon, or apothecary, or in any other place perfectly separate and distinct from the house the deceased died in, as may be agreed on betwixt the said physician and the friends of the deceased.

"3. That the relation of the deceased, or if he have no relations, any person wishing to bury him, or if no such person appear within two days after his death, the overseers of the parish wherein he died, shall have the following powers:—1. They shall dictate how many and what persons, besides the physician, surgeon, or apothecary, who opens the body, shall be present during such examination. 2. They shall fix (whether they are present or by their deputies) peremptorily the limit beyond which incisions into the body of the deceased shall not be carried. 3. They shall appoint the day, and the time of the day, at which the examination shall be made; always providing that longer than one fortnight shall not elapse between a man's death and the aforesaid examination of his body.

"4. That it shall be imperative on every surgeon to perform the examination of a dead body, or cause the same to be performed by some other surgeon, within two days after receiving a written notice.

"5. That every physician, surgeon, or apothecary, that opens a body, shall en-

deavour to ascertain the cause of the deceased's death, and shall transmit to the minister of the parish, wherein the deceased is to be buried, a certificate of the form mentioned below touching this matter, and that he shall keep a copy of such certificate by him, for transmission when required, either to his own college, or such other place, or officer, as his Majesty's Privy Council may direct.

"6. That the office of searchers be abolished.

"7. Provided always that nothing herein stated shall be understood to forbid the opening of the bodies of women and female children, at the habitations in which they die, or at any other places whereunto their friends may choose to send them.

“ 8. And in order to prevent ambiguity in the interpretation of this act, be it understood, that herein the word ‘physician’ implies any fellow, candidate or licentiate of the colleges of physicians in the United Kingdom; that the word ‘surgeon’ implies any member of the colleges of surgeons; and the term ‘apothecary’ any licentiate or member of the companies of apothecaries, in the aforesaid kingdom.

“ ‘9. And be it enacted, that the following shall be the form of the certificate, signed by a physician, surgeon, or apothecary, referred to above:—

"I testify that I have opened the
of the body of and
having found therein am of
opinion was the cause of his
death.

“(Signed)”

“ ‘ 10. And be it enacted, that any person interring, or aiding and abetting of the interment of a body, the said person or persons knowing the same to be unopened ; also, all surgeons refusing to perform, or neglecting the fourth and fifth clauses of this act, shall be committed to the county gaol for any term not exceeding one calendar month, by any two justices of the peace.”

Such an impracticable, disgusting, and utterly useless bill was never engendered in the brain of man. Thus anatomy is to be learnt—not by the pupil—but after he has become a physician, surgeon, or apothecary—and that by a hasty *post mortem* examination in the presence of idle or curious gossips! This levelling of all distinctions, this

wanton laceration of all feeling, this cutting up, *en masse*, this needless and profligate waste of subjects, is all for the purpose of familiarising the minds of the public with anatomy! How any man, in his senses, could propose such general and indiscriminate slaughtering, after exhibiting such acute sensibility towards the outrage committed on the spirit of the British constitution by the private dissection of unclaimed bodies, it is difficult to imagine. The whole pamphlet, indeed, would lead us to suspect that it is written by some enemy to anatomy, who wishes, in this underhand manner, to harrow up the most turbulent passions of the community, and raise still higher the public prejudice against the dissection of human bodies!

XLII.

A MEMOIR ON GASTROMALAXIA, OR SOFTENING OF THE STOMACH IN INFANTS. By FRED. FERDI FELS, M. D. of Leipsig. Translated by M. GENDRIN.

We have more than once noticed this disease in former numbers of the Journal ; but the memoir of Dr. Fels, and the notes of M. Gendrin, present the fullest account of the malady which has yet appeared in any language. We therefore deem it necessary to lay a pretty copious analysis of the work before the British profession.

Gastromalaxia is a disease of infancy which is, as yet, but little known. It is, as the name imports, a softening of the stomach. Custom has led physicians to name and characterise a disease by the effects or consequences of that disease, as seen in the dead body. This is illustrated by the malady under consideration, which, like most others, is determined by general causes, but produces local lesions of certain organs or parts, by which life is too often de-

stroyed. The disease in question has received different names from different writers. Goedecke calls it a *dissolution* of the stomach—Hildebrand a *softening*—Lalancé, an *erosion and spontaneous perforation* of the organ. The perforation is clearly a consequence of the softening—and death often takes place before the perforation occurs. We agree with the author that all names involving the supposed nature or causes of a disease, should be avoided, as liable to fluctuation and error. The actual appearances in the body, either before or after death, when they are at all uniform, afford a surer basis for nomenclature.

Gastromalaxi, like most other diseases, is either simple or complicated—acute or chronic.

I. Simple Acute Gastromalaxia. After some days of moroseness and loss of appetite, sometimes suddenly and without premonitory symptoms, the disease sets in with insatiable thirst, red and sometimes apthous tongue, abdomen often soft and compressible, but generally tender on pressure, especially at the epigastrium, where the temperature is usually higher than elsewhere. Vomiting is sometimes a very early symptom—at other times it comes on later. It is always aggravated by the ingestion of either liquids or solids. The vomiting alternates or coincides with diarrhœa, which is of a watery or porraceous kind. The respiration is usually short and quick, interrupted by a dry cough. The infant cries constantly, and apparently from pain. The face is alternately pale and flushed, the transitions being very rapid, and the countenance always bearing the indications of depression and moroseness. The eyelids are red, contracted, and sometimes œdematous—agitation of the limbs constant—temperature of the surface somewhat elevated—fevers sometimes violent, at others, equivocal, the pulse being quick, unequal; or intermittent. The vomiting and diarrhœa continue—the cries are changed into moanings—there is occasional coma, from which, however, the patients are easily roused—they lie on their backs, the legs drawn up—the extremities get cold—the

eyes are turned up, and the eyelids half closed—the face becomes Hippocratic, and the patients die either in convulsions or without any apparent commotion. The acute form of the disease usually runs its course in forty-eight hours—and is rarely prolonged to the sixth or eighth day.

II. Chronic Gastromalaxia. This form generally runs two periods. The *first* sometimes lasts several weeks, and is characterised by general symptoms:—the *second* presents the characters proper to gastric affection. The duration of this period is usually only a few days.

First Period. The disease frequently occurs at the time of weaning. The child becomes morose, loses its appetite—the abdomen is tense, but not always tender on pressure—the digestion is deranged, as indicated by watery green, or other morbid stools—there is occasional vomiting, apparently excited by a dry cough—emaciation takes place rapidly—the fever, when it exists, is by no means strong. In proportion as the disease advances the little patient refuses food, but sucks if at the breast, or craves for drink if weaned.

Second Period. This is manifested by symptoms directly indicative of gastromalaxia. The vomiting occurs without any food or drink having been given—the diarrhœal discharges emit a very fetid odour. There is sometimes obstinate constipation. The belly becomes tense—the tongue red and furred—knees drawn up towards the abdomen. We do not, however, see by our author's description that there is any very marked symptom distinctive of the two periods.

III. Complications. The disease in question may be complicated with encephalitis, acute hydrocephalus, pneumonia, abdominal inflammations, dysentery, intestinal worms, intermittent fevers, and many of the eruptive diseases.

APPEARANCES ON DISSECTION.

In those who have died of gastromalaxia, we sometimes find the stomach dis-

tended with gas, sometimes with fluids or solids. Occasionally the organ is found burst—but more frequently a change in the textures of the viscus only is observed. The most common seat of the disease is in that part of the stomach which is next to the spleen. The pyloric region is rarely affected. The softened membranes may be increased in thickness, diminished, or of their natural size. The softening is sometimes confined to the mucous membrane—sometimes it extends to the whole of the coats, even to the peritoneal.

The author describes three degrees of intensity in this morbid ramollissement. In the first degree the texture of the tissues is not altered, but the membranes are flabby, soft, and easily torn. At a more advanced period the membranes are seen to be changed into a gelatinous substance, but still shewing traces of organization. The parts are easily mashed between the fingers, and the softened membranes can be readily wiped away even by a sponge. In the greatest degree of the disease there is no remaining vestige of original texture or organization, the membranes being converted into a homogeneous, pultaceous substance, through which one or more perforations have taken place, with fringed and softened borders.

The colour of the membranes in this disease is various, and sometimes little different from the natural tint. The same may be said of the extent to which the disease spreads. It is very various. For the most part there are evident traces of inflammatory action in the other parts of the stomach, or near the softened portions. The contained matters, in such circumstances, are generally very acid, and but rarely putrid.

ETIOLOGY.

Gastromalaxia may be considered as peculiar to infancy—being rarely seen after the age of two years. It generally shews itself during the first dentition, and especially at the period of weaning, when the child begins to exchange the milk of the mother for more solid nutriment. The author enters into some speculations on the reasons why infants should be more

subject to the disease than adults; but we do not deem it necessary to follow him in this part of the investigation. Among the predisposing causes may be ranked all those which are capable of deranging the digestive functions. The unwholesome milk of a nurse—too early weaning—aliments of difficult digestion—the application of cold to the surface—the abuse of stimulants and narcotics—various diseases, as whooping-cough—worms—intermittent fevers, and the eruptive diseases, &c.

DIAGNOSIS.

The following are considered as the most pathognomonic symptoms; viz. diarrhoea, consisting of copious watery, mucous, and greenish stools—bilious vomitings, indomitable by any remedy—ardent thirst—irregular fever—prostration of strength—drawing up of the feet, and especially of the left foot—paleness and coldness of the extremities—rapid emaciation of the whole body, but especially of the neck—soporose state, from which the patient is not easily roused, the cerebral functions not appearing to be much affected—stified groaning—face expressive of great distress. At the same time it is necessary to state that it is by a reunion of several of these symptoms that we can hope to recognise the disease—and not by any one of them.

In respect to the proximate cause of the disease we fear that very little satisfactory can be adduced. The opinions of Hunter, Cruickshank, Heischmann, Cruveilhier, and many others, are canvassed, but without benefit. When the author himself says that the proximate cause of gastromalaxia may be a loss of vital energy in the organ, he offers us a vague idea, of which we can make little or no use.

The dangerous tendency of the disease is unquestionable. Not more than one out of eight or ten infants, he thinks, are preserved, when this malady has once commenced. Of the treatment, too, we have little consolatory, and nothing positive, to put on record. Several physicians, and, among others, Massius, Pöbli, and Gairdner, have recommended the

antiphlogistic treatment. M. Cruveilhier, who appears to have had most success as well as experience in this complaint, strongly advises us to put the child on a system of starvation, not only as to food, but as to drink. He prohibits all kinds of sustenance, but barley water mixed with some yolk of egg, and given in the quantity of a table-spoonful every two, three, or four hours. To children recently weaned he gives small quantities of the nurse's milk. He prescribes tepid baths from the beginning—but his sheet-anchor is opium, given both by the mouth and by injection. This administration of opium is censured by many writers; but almost all agree in recommending rigid abstemiousness, the tepid baths, and abstinence from all purgatives. For our own parts, without being able to speak from much experience in this rare and dangerous malady, we would, from reasoning on the data actually on record, regarding its pathology, be inclined to trust mainly to the powers of Nature, taking care not to interfere with these powers by any active medicine exhibited by the mouth. Arrow-root and milk appear to be the best kind of nourishment, keeping the bowels clear by means of watery and oily injections. If, as is not improbable, there be often some inflammatory action at the bottom of the malady, there can be little danger, and there may be some benefit, in the application of leeches to the epigastrium, and even some light counter-irritation there afterwards.—Considering the occasional acrimony of the secretions in the first passages, at all periods of life, even the earliest, we conceive that absorbents are strongly indicated in this disease. We should be inclined to exhibit almond emulsion with magnesia and small doses of hyosciamus, as soon as the symptoms are strongly marked, and after the bowels are cleared by castor oil.

To the Essay in question is appended a considerable number of cases, many of them interesting and instructive. The learned editor of the *Journal General de Médecine*, (M. Gendrin,) has also added a case that happened under his own observation, accompanied by some practical remarks, which are deserving of attention. For these, however, we must refer to M. Gendrin's translation of the essay, as published

in the 8th volume of the 3d series of the above journal.

XLIII.

ADIPOCIRE IN THE FLUID OF A HYDROCELE.*

Those who have witnessed many operations for hydrocele, must sometimes have observed small scales of white spermaceti-looking matter floating in the fluid drawn off. Not very long ago, a deservedly eminent surgeon in this town being curious to know what the substance in question might be, sent the fluid in which it was contained to a distinguished chemist, requesting his opinion on its nature. To his no small surprise there came back, in the course of a few days, a bottle, containing some very pretty crystals, and a note, importing that they were adipocire, the product of the chemical examination of what had been sent! The worst of it is that the chemists, like the microscopists, have it all their own way. Nobody can see as far as the one, nobody can possibly contradict the other. When a scientific gentleman transmutes some dirty-looking water into brilliant crystals, what can we do but admire and believe? Seriously, however, it is a curious circumstance that the living body should present, as a product of disease, what used to be considered as a change exclusively produced by the gradual operation of certain decomposing agents after death. The fluid which was the subject of the present analysis was put into Dr. Bostock's hands by Mr. Earle, who had drawn it off from a hydrocele of some years' standing. It was of reddish-brown colour and of viscid consistence, with some masses of mucus floating in it, while some pearly scales of whitish matter lay at the bottom of the vessel.

* Dr. Bostock. Med.-Chir. Trans. Vol. XV.

On agitation, these scales were diffused through the fluid, on which they conferred a shining and glossy appearance.

ble in water or in alcohol, nor is it capable of being saponified by potash, but is partially soluble in ether.

"I immediately recognised the fluid as resembling some of which we have a notice in the early volumes of our Transactions, the first by Dr. Marcet, and the others by myself; the former obtained by a diseased thyroid gland, the latter from tumours seated in the muscular parts. Dr. Marcet ascertained that these white particles were inflammable and partially soluble in alcohol; my observations, in a great measure, coincided with his, and led me to conclude, that it was a substance, intermediate, in its chemical properties, between albumen and wax; I therefore named it albumino-cereous matter. A substance of the same appearance has been since detected by M. Breschet and by Dr. Christison in various morbid fluids, which in its chemical relations was found to resemble cholesterine; so that this white scaly matter appears to be occasionally formed in various parts of the body, and in connexion with various structures. But as the above substances, although agreeing in their leading properties, both physical and chemical differed in some minor points, I thought the matter in question deserving of a more detailed examination."

Dr. B. accordingly instituted a series of experiments, which those who are curious respecting the subject may find in the original paper. We cannot afford the space for their insertion, but must be content to acquaint our readers with the conclusions to which they led the able experimentalist.

"The above experiments seem to prove, that the white scaly matter which was formed in the fluid in question, was not precisely similar to any of the proximate principles generally recognised; it was essentially different from albumen, from adipose matter, from osmazome, from adipocire, and from cholesterine. It may be briefly characterized as a substance disposed to assume the form of thin plates or scales of a white colour and pearly lustre, of a somewhat unctuous consistence, fusible at a high temperature, inflammable, and burning with a bright flame. It is not solu-

"It would appear that a substance of the same *general* nature with the white scales described above is occasionally found connected with the solids, as well as with the fluids of the body. Besides its existence as the principal constituent in the biliary calculi, it seems to be not unfrequently found in the substance of the liver, in certain diseased states of this viscus, as well as in tumours and morbid depositions of various kinds. We may conjecture that this peculiar substance is immediately derived from the albumen of the blood, and we may further conjecture that it is an extra-vascular production, that it does not exist ready formed in the blood, or any of its component parts, as long as they are under the influence of the circulation. It would appear probable, that when an albuminous secretion is deposited in a cavity, and retained there for a certain length of time, a part of its animal matter is converted into this substance. We have not indeed been able hitherto to form it out of the body by any artificial means, but its nature and the situations in which it is found, favour this supposition. The process we may regard as analogous to that by which the muscular fibre is converted into adipocire,* the substances produced bearing a certain relation to each other, and the principal agents in both cases, being certain states of moisture and temperature. As it is always convenient to have a specific name for every substance which possesses specific properties, I

* "An opportunity lately occurred to me of proving decidedly, that adipocire is the immediate production of the muscular fibre, not, as has been supposed by some eminent chemists, a mere residue of the fat, after the destruction of the muscle. I obtained a portion of a human thigh, which, in consequence of long maceration in water, had undergone the change in question, the

propose to retain the appellation, which I formerly suggested, of albumino-cerous matter, which may at least be employed as a temporary or provisional term, until we have one that is more appropriate.

"According to this view of the subject, the substance in question must be regarded, rather as the cause than the consequence of disease; the primary morbid change not being in the fluid, but in the organ into which it is deposited; the substance, after its deposition, giving rise to further derangement, either by unduly distending the parts, or by mechanically obstructing the vessels. We possess no agent by which the substance, when once deposited, can be removed, nor are we acquainted with any means of preventing its formation. Fortunately, however, in most cases, the situation and the mode of its deposition place it out of the reach of the more active and vital parts of the system, and render it rather an object of physiological curiosity than of medical treatment."

XLIV.

CYSTS CONNECTED, AND SUPPOSED TO BE CONNECTED WITH THE CONVEX SURFACE OF THE LIVER.

In the 12th number of the London Medical Gazette is a communication from Mr. Brodie containing two cases of much interest in a practical point of view. A similar case having lately been published by Dr. Hastings, of Worcester, we are induced to collate them, in order that the pro-

form of the muscles was preserved and there was no apparent loss of substance; there was even an indistinct appearance of the fibrous texture. On heating portions of this substance with alcohol and with ether, the whole was dissolved, except the cellular web, which was left exhibiting its ordinary structure, and forming one-twelfth part only of the whole. An observation of nearly a similar kind had been previously made by Dr. Thomson; Ann. Phil. XII. 41."

fession may acquire a truer idea of the affection to which they relate, than either paper of itself would afford. In doing thus, we are merely acting up to a plan we have frequently adopted before, with advantage, as we imagine, to the public.

Case 1. In the Spring of 1822, Mr. Brodie was consulted with a medical practitioner, on the case of a young lady 20 years of age, who laboured under a tumour in the right hypochondriac region. Fluctuation was very perceptible in the tumour, which not only lifted up the inferior ribs on that side, but projected distinctly from below them. The tumour had begun to appear, though faintly, a year or two previously, and produced from the first some pain, which increased with its growth, till at length the inconvenience was such that the patient was prevented from sleeping except in a particular position, and from taking any exercise.

The disease advancing in spite of the remedies recommended by Mr. B. and the inconvenience increasing also, he was induced on the 27th of June, 1822, to puncture it with a flat trocar, cautiously introduced below the margin of the ribs. About three pints of a watery fluid were evacuated, and care being taken to prevent the ingress of air, and the edges brought together by adhesive plaster, the wound united by the first intention. A bandage was also applied round the upper part of the abdomen, and the patient kept in bed for the first few days after the operation. For two or three weeks she suffered from a very troublesome cough, but as this subsided, she found herself greatly improved, and was soon free from pain, able to lie in any position and to walk as well as other persons. Mr. Brodie saw her in January, 1828, when she continued quite free from any of her former symptoms.

Case 2. In August, 1822, a little boy was admitted into St. George's Hospital, under Dr. Chambers, with a tumour presenting itself below the margin of the ribs of the right side, lifting up the ribs also with a distinct fluctuation, and altogether

very nearly resembling the tumour which existed in the preceding case. In September, it was determined in consultation to operate, and Mr. Brodie accordingly introduced a flat trocar below the margin of the ribs, and drew off a pint and a half of watery fluid. The boy left the hospital as cured, and has neither been heard of nor seen by Mr. Brodie since. The water evacuated in both cases was clear and colourless, containing no coagulable lymph, and scarcely coagulating at all on the application of heat.

"From the situation of these tumours, I was led to believe," says Mr. Brodie, "that the disease must have been situated in the liver. Cysts are found in the liver containing hydatids, but the circumstance of there being no debris of hydatids in the fluid drawn off, and of there having been, in one instance, at least, no return of the disease at the end of five or six years, seem to be at variance with the opinion that such was the nature of the tumour in either of the above cases. Not unfrequently I have noticed in dissection a membranous cyst projecting on the convex surface of the liver, containing a clear, watery fluid. The cysts to which I allude are generally of the size of a marble. The largest which I have chanced to see in the dead body might have contained from one to two ounces of water: but there is no reason why such a cyst should not increase so as to attain a very large size, and I can offer no better explanation than this of the cases which I have now recorded."

We shall presently see that the following case, where dissection, unfortunately, cut the knot, will offer a gratifying corroboration of the truth of Mr. Brodie's conjecture.

*Case 3.** The patient was a shoe-maker, 37 years of age, first seen by Dr. Hastings on the 4th of February, 1820, when he pre-

sented the following symptoms—"The abdomen was tumid, hard, and for the most part compressible—there was slight depression extending from about the region of the cæcum, to the epigastrium, where fluctuation was perceived when he was sitting up, but not when lying down—great pain, not constant, in the right hypochondrium, back, and right shoulder, in which he had also an almost constant sense of coldness—when sitting upright, a pretty severe pain across the abdomen at the navel—great dyspnoea, except when lying on the right side; and a distressing cough; expectoration difficult; sputum clear, frothy, of a bluish colour, and salt taste. While out of bed, he sat most with his head leaning on a table, the body inclined forwards, and towards the right side. His sleep was much disturbed by unpleasant dreams and frequent startings. His countenance was expressive of great anxiety; excessive emaciation; pulse 120, not weak; respiration frequent and laborious; tongue of a purplish red; appetite pretty good; considerable thirst. He vomited often in the morning a frothy matter. Bowels costive; feces dark coloured; urine scanty, with a light red deposit."

He had been engaged in active services as a soldier for seven years, when he returned home in the summer of 1816, and shortly afterwards became much affected with dyspeptic symptoms, attributed by himself to his employment. In November, 1817, his feet and ankles became oedematous, and the swelling proceeded upwards until it attacked his face. In June, 1819, he was attacked, for the first time, with pain in the right hypochondrium and shoulder, and from that time his symptoms gradually increased. Such were the symptoms, and such the history of this disease, and certainly neither were encouraging. From the perusal one would be tempted to think that both the liver and the heart were implicated, at least the swelling of the face, particularly in the commencement of the disease, are seldom found in dropsy unconnected with cardiac affection. However, to proceed with the case, mercurial frictions were employed at various times with little or no good effect, and afterwards the bowels were merely kept open, and laudanum administered to relieve the pain. The disease marched

* Midland Reporter, No. V. Aug. 1829.

on—the dyspnoea became extreme,—and the fluctuation, which before was only noticed in the upright posture, was now very distinct in the supine, and accompanied with evident effusion in the lower part of the belly.

On the 11th March, 1829, the operation of tapping was performed by incision with a scalpel, about three inches below the point of the sternum. Eight pounds of fluid were thereby discharged, whilst the patient continued horizontal, and when he sat up to have the bandage adjusted, fluctuation was again perceived in the same spot, and there was an oozing under the strap by which the wound was closed. On the canula being re-introduced, upwards of a pound more of fluid was evacuated. For two days the breathing was relieved by the operation, but on the 13th dyspnoea had returned, the canula was passed once more into the wound, and four pounds of fluid obtained with great relief. After this there was a continual and copious oozing from the wound, the patient progressively sank, and expired early in the morning of the 23d.

Sectio Cadaveris. On reflecting the integuments of the thorax and abdomen, and removing the sternum, there appeared in the epigastric region a fine membrane forming large cells, which, when punctured, gave issue to fluid. The membrane in question was situated between the peritoneal covering of the liver, and the parietes of the abdomen, and no communication existed between the interior of its cells and the general cavity of the abdomen. It was here that the fluid drawn off by the operation was seen to have been seated. The liver nearly filled the cavity of the abdomen, and pushed up the diaphragm as high as the second ribs, whilst it extended downwards nearly to the pubes. Its peritoneal coat adhered extensively to the diaphragm, and between that coat and the liver itself a vast cyst was formed which contained nearly fourteen pints of bloody serum. The liver in other respects was healthy, and so was the spleen. In the abdomen were about eight pints of fluid, somewhat viscid and tinged with bile, together with a small quantity of purulent

matter, though no ulcerating surface could be found. The lungs were small, remarkably collapsed, and adhering pretty strongly to the diaphragm, but otherwise healthy. The cavity of the thorax contained several pints of fluid; the heart was small but healthy.

In the following remarks of Dr. Hastings we perfectly agree, but previously to quoting them, we would venture to hint a difficulty that occurs to us in perusing, or rather understanding the report of the dissection. The cells, we are told, were between the peritoneal covering of the liver and the parietes of the abdomen. Is it meant by this that they were in the peritoneal cavity? Unless the peritoneum lining the abdominal parietes were destroyed, they must have been so according to the report, and indeed in accordance with what one would imagine *a priori*. We will give the remarks of Dr. Hastings without further comment.

“This singular and interesting case seems well worthy consideration, as the subject of it seems to have fallen a victim to a disease, which did not appear to affect the substance of any of the important organs. It is probable that originally the cysts on the convex surface of the liver, which had attained so enormous a size, were not larger than those Mr. Brodie punctured with success; and it is to be presumed, that if the case had been seen sufficiently early for this practice to have been employed, it would have been followed by a like favourable issue.

“The case is also very important, as illustrating the necessity of being very cautious in forming a decided opinion of the existence of organic disease of the liver, where there is very evident enlargement in the neighbourhood of that viscus; for the above case convinces us, that this state of tumefaction may occasionally arise from extraordinary accumulations of fluid in cysts, at the convex surface of the liver, without any disease of that organ.

“This instance also seems satisfactorily to evince, that the cases Mr. B. punctured, were really what he supposed them to be, cysts containing a watery fluid, connected with the liver.

There is also another point to which the attention of the reader should be called; the unnatural situation of the diaphragm, occasioned by the accumulation of fluid at the convex surface of the liver. The cavity of the chest, by this means, was much diminished in size, and hence arose the cough, difficulty of breathing, and disturbed dreams; as likewise the compression of the lungs, and collection of serous fluid in the thorax."

XLV.

SOME CASES OF NEURALGIA. By Dr. PASSAGAY.

Case 1.—GASTRIC NEURALGIA CONVERTED INTO DENTAL NEURALGIA.

Miss Arnaud, aged 33, enjoyed good health habitually, with the exception of attacks of tooth-ach, by which she had lost some of her teeth. She was suddenly seized, in the middle of Autumn, with a species of gastrodynia, severe pain in the epigastrium, flatulence, weight, eructation, nausea and vomiting of aliments, constipation. She now remembered that, in Autumn, she had before been frequently affected with slight dyspepsia, occasioned, as she thought, by eating too much fruit. For seven months after this last attack, she was unable to bear more than a few spoonfuls of food at a time, without experiencing dreadful sufferings. Two physicians, whom she had consulted, declared that she laboured under scirrhus of the pylorus, and prescribed accordingly. During three months that she followed their advice, her sufferings became greatly aggravated. The pain, on taking the smallest quantity of food, was not confined to the region of the stomach, but occupied the superior dental arch, where it was intolerable. In this state she went on some months more, and is now wasting away with a hectic fever, vertigos, faintings, &c. so that her death appeared fast approaching. Seven physicians were called into consultation, and retired without deciding on any thing useful. The author was then left alone; and having viewed

the case as one of neuralgia rather than of cancer, he entertained some hopes of recovery. He prescribed opium combined with aloetic aperients, and stimulant frictions, with anodynes to the region of the stomach. Nutritious lavements were daily thrown up, and gentle carriage exercise recommended. In one month of this plan she was restored to health.

Case 2.—CHRONIC NEURALGIA OF THE STOMACH, AFTERWARDS OF THE ILLIUM.

A youth, 16 years of age, came under our author's care on the 20th December. He was pale and emaciated with long suffering. Every evening, between five and seven o'clock, he was seized with an intense pain in the region of the stomach, accompanied by nausea, vomiting and obstinate constipation. The accession lasted from six to eight hours, and was never over before midnight. This state had continued, with little or no variation, for six years. The appetite and sleep were little affected, and the other functions were undisturbed. One circumstance was remarkable. The disease ceased for about a month every Spring, and then returned as bad as ever. When the boy was brought to our author, the seat of the pain had changed from the epigastrium to the right iliac region, which was tender on pressure. In all other respects, the complaint was precisely the same. The pain came on every evening at seven o'clock. Every kind of antiphlogistic remedy and depletion had been unsparingly used, without the least success. In one week the malady ceded to stimulant frictions—antispasmodics—and a combination of sulphate of quinine with subnitrate of bismuth and calcined magnesia. Six years have now elapsed without any return of the disease.—*Clinique.*

XLVI.

ON THE OTORRŒA PURULENTA. By J. BURNE, M. D.

The fourth and fifth Numbers of the Mid-

land Medical and Surgical Reporter contain a very useful practical paper on Otorrhœa by Dr. Burne. This young physician is already known to the profession by his work on Fever, and his opportunities of cultivating morbid anatomy must be great, from the official situation he holds or held in the Borough hospitals. The paper to which we shall immediately proceed is a long one, but analysis, no doubt, will enable us to curtail it considerably of its fair proportions.

Dr. B. remarks, and we believe with justice, that the disease is in general ill understood; the aurist getting the commencement, when the ear only is affected, the physician the termination, when the cerebrum is implicated, and neither of them seeing or understanding the case as a whole. The otorrhœa, or chronic discharge from the ear, may be mucous or purulent, or mucous originally and purulent afterwards. The otorrhœa mucosa is common in children, confined to the external meatus, and generally yields to treatment, or subsides on the arrival of puberty. The otorrhœa purulenta, on the contrary, is deep-seated and dangerous, and may depend on inflammation of the external ear, the cavity of the tympanum and the bones which it contains, or the internal ear, consisting of the vestibule, semicircular canals, and cochlea. The mucous lining of the tympanum is the part most commonly affected, and the retention of the matter which is formed is the cause of the serious mischief.

"The inflammation of the tympanum, or the otitis interna, manifests itself by a severe pain deep-seated in the ear, which rapidly increases, and affects the whole corresponding side of the head, producing an intense hemicrania. A sympathetic febrile movement is quickly developed; the pain extends itself in the direction of the eustachian tube, and of the mastoid cells, and is exceedingly aggravated by the slightest noise, or the least motion of the head. The pain now acquires a throbbing character; the middle ear, viz. the cavity of the tympanum, is soon filled with a muco-purulent secretion, which having no outlet in consequence of the canal of the eustachian tube

being obstructed by tumefaction, produces a most distressing sensation of tension. To these symptoms, delirium not unfrequently succeeds, and all the sufferings continue without remission until the confined matter has worked itself an outlet."

The matter may discharge itself through a spontaneous perforation of the membrana tympani, by the eustachian tube, or through a fistulous opening in the mastoid process; the first, according to Mons. Itard, the most frequent. When the discharge takes place, it is sudden, copious, and immediately succeeded by a subsidence of the violent symptoms. Sometimes the matter will escape both by the meatus externus and eustachian tube simultaneously, or, what happens oftener, will alternate. The disease is not unfrequently chronic, and produced by the inflammation travelling from the throat along the eustachian tube. This happens especially in the inflammation of the fauces attending eruptive diseases, and hence otorrhœa is frequently dated from an attack of small-pox or scarlet fever.

When the matter lodges in the tympanum, from whatever cause, slow, but continual, insidious, and destructive disorganization ensues, attended only by obscure symptoms, except when accident, as the taking cold, kindles up more urgent and alarming mischief. Life is threatened in these attacks, by one of which the patient is sooner or later cut off.

When the confined matter has worked its way out by ulceration of the membrana tympani, the second stage of the disease is established. The air now getting access to the retained matter, it is decomposed, its irritating qualities are increased, the lining membrane ulcerates, and the bony structure is exposed. The pus being more pent up in the mastoid cells than elsewhere, they are first affected, and may be greatly undermined before we are aware. Little is complained of but an obscure pain in the region of the middle ear, spreading from thence over that side of the head, and accompanied with dulness of hearing. The face is apt

to be sweaty, the hair greasy, and, in most cases, the inflammation and thickening extend to the posterior nares, making the voice thick and obliging the patient to breathe through the mouth.

"As the caries advances, the mastoid process becomes tender on pressure, and the integuments about it puffy and vascular; and by and by, the perforation of the bone being completed, the matter escapes, and forms an abscess underneath the integuments. The point where the carious perforation happens, is generally at the anterior part of the groove, from which arises the digastric muscle. The abscess does not burst readily, but extends itself upwards behind the ear, the soft parts offering less resistance in this direction; but there are examples in which the abscess descends under the stylo-mastoidæus, and points low down in the neck; it never extends backwards, being prevented by the digastric and trachelo-mastoid muscles, and the deep cervical fascia.

"The caries of the mastoid cells does not confine itself to this outward direction, but spreads on every side, and next affects that part of the posterior surface of the base of the petrous portions of the temporal bone, which forms the fossa for the lateral sinus, and the posterior wall of the mastoid cells; the bone is here naturally thin, and when carious presents a worm-eaten appearance. Through these carious perforations, the matter penetrates, and irritates and detaches the dura mater, and gives rise to more decided cerebral symptoms. The same thing sometimes happens on the superior surface of the petrous portion, in that part which forms the roof of the mastoid cells, but the bone being thicker at this point, is less easily penetrated. Should the patient survive, the caries will go on to ravage the internal ear, viz. the labyrinth: the membranes which close the fenestra ovalis, and the fenestra rotunda, are destroyed, and the small bones of the tympanum discharged through the external meatus; the irritating matter insinuates itself into the vestibule, semicircular canals, and scalæ of the cochlea, which, like the mastoid cells, it disorganizes; and in this way all the sinuosities and cavities, and bony fabric of the ear, are de-

stroyed, and confounded together; and the petrous portion and mastoid process of the temporal bone, present one large carious excavation.

"In the course of this general devastation, is involved the aqueduct of Fallopius, and the portio dura and fascial nerve, the disorganization of which gives rise to particular symptoms, as neuralgic pains, convulsive twitchings, and lastly, paralysis of the muscles of the corresponding side of the face."

The membranes of the brain become affected at an earlier or later period of the caries of the temporal bone, and the patient may be then carried off by a meningitis. At other times the membranes ulcerate, and so does the brain itself, which presents a suppurating cavity more or less deep and extensive. Whilst the disease is confined to the ear, the otorrhœa varies much in quantity, particularly if the eustachian tube is pervious, being at one time profuse by the meatus, at another by the tube. The discharge by the latter collects in the pharynx during sleep, and is hawked up in the morning in considerable quantities. When the discharge is suppressed, as from cold, the pain in the ear and head is much increased, and there is symptomatic fever, attacks of which nature are frequent. If the labyrinth becomes affected, the patient's sufferings are excruciating, but the disorganization frequently goes on to affect the brain and destroy the patient, without this implication taking place.

When the membranes of the brain become affected, the pain, of course, is no longer referred to the ear; there is a deep-seated severe throbbing pain in the middle of one side of the head, with great tenderness of the scalp on the same side, so that the patient cannot lie upon it; there is no marked suffusion of the face, nor vividness of the eye, and although there is delirium, it is little active, and is complicated with a heaviness of the head and some stupor; the pulse is rather tight than full, and sharp than strong; the symptomatic fever moderate in the day, but offering a marked exacerbation at night. It is from the symptoms above enumerated, coupled, of course,

with the previous history of the case, that the practitioner is to distinguish this secondary meningitis from the idiopathic form of the disease, a distinction of some importance in regard to the employment of depletion.

Treatment. When a puriform discharge from the tympanum is once established, our object should be to prevent its accumulation by injections. When the membrana tympani is perforated by ulceration, they can easily be thrown in by the meatus externus, but the most formidable obstacle to a cure is the lodgment of matter in the mastoid cells. The only measure which presents itself in such a case is to perforate the mastoid process, and inject by the artificial opening, a plan recommended highly by the younger Sprengel in his *History of Surgery*. Should the membrana tympani not have been perforated by ulceration, and the discharge have taken place only by the eustachian tube, this method would offer equal advantages, the injections passing directly from the cells through the tympanum, and down the eustachian tube into the pharynx. We have never seen this operation performed, but the excellent effects of removing portions of the external table of the cranial bones, for lodgments of matter in the diploë, would lead us to entertain a very favourable opinion of the proposal. The trephine is the best instrument to employ on such an occasion. For the composition of the injections, Dr. Burne believes that warm milk and water will answer as well as any thing, but M. Itard recommends astringents, especially the potassa fusa dissolved in rose water. We should think that the dilute solutions of the sulphate of zinc, or nitrate of silver, or some other of the washes commonly employed in the treatment of ulcers depending on carious bone, might be useful.

Care must be taken to ascertain that the caries has not penetrated the skull before we have recourse to the injections, as the consequences in such a case might be serious. The occasional attacks of inflammation in the ear soon yield to mild antiphlogistic treatment, and the application of a few leeches to the mastoid process. When,

however, the mischief has spread to the brain, a return of the otorrhoeal discharge must be sedulously courted by fomentations and poultices to the side of the head, and bloodletting, so far as to keep the inflammation within limits consistent with life. If drawn too freely, it cannot put an end to the attack, the cause still operating, but as soon as the discharge returns, the patient will sink.

"In every attack of this nature, the practitioner should examine the affected side of the head attentively, as an attack is apt to supervene at the moment of the formation of abscess behind the ear, from the carious perforation of the mastoid process; in this case a free incision is to be made into the fluctuating tumour, and the matter allowed to discharge itself, which will at once alleviate the sufferings, and give a favourable turn to the symptoms, provided discretion has been observed in the abstraction of blood."

Such are our author's principles of treatment, and we own that we are surprised at his almost total silence respecting local depletion and counter-irritating measures. In the earlier stage, that previous to ulceration, he does not even hint at them, and afterwards he merely recommends a few leeches and "mild antiphlogistic treatment" during the temporary accessions of inflammation. We would certainly advise the more frequent application of leeches, blisters behind the ear, the antimonial ointment, or cupping, according to circumstances. When the disease is become very chronic, and the discharge is copious, leeches and cupping are not required, but still we would not altogether abandon counter-irritation by the tartar-emetic. We shall now advert to the cases appended to the Doctor's paper, and intended to illustrate his precepts and practice.

Case 1. CHRONIC PURIFORM DISCHARGE BY THE MEATUS EXTERNUS AND EUSTACHIAN TUBE.

Elizabeth Waugh, æt. 15, is constantly subject to an offensive discharge from the

throat, which collects during sleep, and is hawked up in considerable quantity in the morning. A discharge of the same kind issues sometimes from the left ear. She has deep-seated extensive pain in the head between the ears; dull aching pain in the left, occasionally of a pricking character; sometimes she is deaf in this ear, at others, the hearing partly returns. She has frequent attacks of violent pain in the part, with severe head-ach, fever, and occasionally vomiting, which are always preceded by a suppression of the discharge, attributed to cold. The nares are pervious, but small, which obliges her to keep her mouth constantly open; the upper eye-lids droop; the face is pale and sallow; and she suffers from extensive constipation of the bowels, passing a fortnight without a dejection. She began to menstruate in the Spring of last year, and has continued to do so *irregularly*.

In a consultation with Mr. Briggs, the disease was not considered far enough advanced to justify perforation of the mastoid process, a determination in which the consultants, we think, acted wisely. Injections, leeches during the attacks, and daily evacuation of the bowels were attended with excellent effects. The disease, however, is still going on.

All who are conversant with the maladies of the female sex, will not fail to recognize a great deal of nervous affection mixed up with the *aural* disease in the foregoing case. The irregular menstruation, constipated bowels, and pain over almost the whole of the head, are characteristic features of those complaints, which attack, in a greater or less degree, the great majority of young unmarried females. Attention to the bowels is a leading point, and Dr Burne particularly adverts to its excellent effects in the present instance.

CASE 2. OTORRHOEA—ABSCESS BEHIND THE RIGHT EAR—HEAD SYMPTOMS—CASE MISTAKEN FOR IDIOPATHIC PHRENITIS—DEATH.

"The patient was a young lady about 25 years of age, and had been ill already ten

days, when I was desired to see her in consultation. She was supposed to be labouring under an idiopathic phrenitis, and had been bled copiously and repeatedly. The attack commenced with head-ach and bilious vomiting.

"The prominent complaints were a violent throbbing pain in the head, with tenderness of the scalp, on the right side, which made her unwilling to lie upon it; great pain also in the middle of the arms. She had a pale face and a vacant look; the pupils were dilated, and light thrown upon the eyes made them ache; when the eyes were closed she was disturbed by frightful images, which entirely prevented sleep; the tongue was white, and at times she had been sick, and had vomited; the pulse numbered 140, was compressible, and the artery yielded to the impulse of the heart, and she had profuse perspirations. There was tenderness in the præcordia, and the bowels were not satisfactorily open; at this time she was sensible, but delirium, unaccompanied with restlessness, prevailed through the night.

"The case appeared to me exceedingly ambiguous; it was evidently not an idiopathic phrenitis, and as there was much tenderness in the præcordia with a confined state of the bowels, I thought it possible the condition of the head might depend on deranged function of some of the abdominal viscera, and therefore that a correct diagnosis could not be formed until the bowels had been properly evacuated. To this end aperients were prescribed, which produced on the next day some slight general relief; but all the head symptoms continued.

"Being still undecided as to the nature of the complaint, I proceeded to examine the head, and discovered a large abscess behind the right ear, covering the mastoid process and inferior angle of the parietal bone. All doubt was now cleared up, and on inquiry, I found she had been subject to pain in that ear, and also to purulent discharge from it, so that it was evident the disease was an inflammation, supervening on otorrhœa at the period of the carious perforation of the mastoid process, and

formation of abscess behind the ear. The abscess was opened by the surgeon, and discharged a small tea-cup full of most offensive matter, indicating disease of the bony structure; she was directed to take tonics, and an anodyne at bed-time.

"On the following day, she expressed herself as having passed a more comfortable night, and as suffering much less pain in the head; but notwithstanding this mitigation of suffering, it was too visible that the powers of life were fast declining. She had now the aspect of a woman exhausted by uterine hæmorrhage, the face being a pale sallow, exsanguineous and rather bloated; the conjunctiva blanched, and the eyes glassy; the pulse had decreased in frequency, from 140 to 128, but its stroke was of a mock fullness, short and unsteady, and very compressible. After this, the delirium became constant, the respiration grew hurried, the circulation feeble, and she expired at the end of two days. Inspection of the body was not permitted."

Dr. Burne makes no remark on the foregoing case, no doubt from motives of delicacy and personal considerations. Can it be doubted that the poor lady died from the injudicious treatment adopted, we mean from the copious and repeated bleedings for idiopathic phrenitis? Alas, the aspect of *uterine hæmorrhage* bespeaks but too truly the victim offered up at the Moloch shrine of inflammation.

Case 3. OTORRHOEA—CRANIAL IMPLICATION—DEATH—DISSECTION.

Mr. —, æt. 40, a patient of Mr. Finch, of Greenwich, had been subject to puriform discharge from the left ear for upwards of 15 years, during the latter part of which time he suffered intense pain in the head, particularly on the affected side. When, from accident or otherwise, the discharge was checked, there supervened inflammation of the membranes of the brain, which always placed his life in danger and eventually destroyed him. During the course of the disease, there took place paralysis of the muscles supplied by the left portio dura, and, a short

time before death, an abscess attended with severe cerebral symptoms, shewed itself behind the ear, at the base of the mastoid process. This was opened by Mr. Callaway, a quantity of ill-conditioned matter let out, and the bones of the mastoid cells discovered to be diseased. A number of medical men were consulted, no two of whom would seem to have agreed, no one of whom would seem to have been of use. An aurist arrested the discharge and increased the disease; another, we suppose a dentist, discovered disease of the antrum, and proposed the extraction of a tooth; in short, the case was very little understood, the patient died, and the following is the account of the dissection.

"*Sectio Cadaveris, 48 hours after death.* The body emaciated to the second degree,* having been corpulent.

"The dura mater visible on the removal of the upper part of the cranium, was sound, but blood oozed very freely from the torn vessels. The right hemisphere presented considerable arborescent vascularity of the pia matter, with some serosity in the furrows of the convolutions; but the veins between the convolutions not larger than is natural. At the fore and inner part of the anterior lobe of this hemisphere, close to the falx, was some yellow consistent albumen in one of the furrows of the convolutions, and exactly opposite to it was a similar effusion, in the anterior lobe of the left hemisphere. Portions of consistent albuminous effusion were also seen under the arachnoid, in the left temporal fossa in the fore part of the middle lobe of the left hemisphere, in the tractus opticus, on each side of the tuber annulare, and on the inferior surface of the right lobe of the cerebellum. The left hemisphere presented an arborescent vascularity greater than the right, and the veins between the convolutions were larger and fuller.

* What this *second* degree of emaciation may be, we really do by no means profess to know. Perhaps they keep a *gamut*, or scale of leanness in the borough!—*Rev.*

"The substance of the brain was preternaturally firm, especially the left hemisphere, which was firmer than the right. In the medullary substance the bloody points were very numerous, about the junction of the middle and posterior lobes; and in the centrum ovale, the vessels in the medullary substance were remarkably large, and conspicuously so on the left side.

"In the ventricles the veins were of an unusual size, and there was a general duskiness of the *copora striata* and *thalami*; the *commissura mollis* was wanting, the *thalami* being in imperfect apposition, and, at the anterior and upper part of each *thalamus*, was a tuberosity, softer on the left than on the right side.

"The left lobe of the cerebellum was soft, though not entirely disorganized at its anterior inferior part opposite the internal auditory foramen; the convolutions at this part were unattached to each other, and the *pia mater* was beginning to ulcerate. At the base of the skull, in the neighborhood of the internal auditory foramen, was a fetid sero-purulent effusion, to the extent of six *drachms*, part of which flowed in the direction of the vertebral canal.

"The *dura mater*, at the base of the skull, was sound on its cerebral surface, except that it was of a darker colour over the petrous portion of the left temporal bone, than of the right.

"The diseased temporal bone was taken out and when the soft parts had been removed by maceration, it afforded a fine specimen of the carious disorganization which accompanied the chronic puriform discharge from the ear. The disorganization had entirely broken down the mastoid cells, converted them into one large excavation, extending in the direction of the mastoid process, which was perforated at the root on the inside, the point where the abscess formed. The caries had also enlarged very much the natural opening between the cells and the tympanum, and had involved the aqueduct of Fallopius; it had also penetrated the vestibule and cochlea, thus forming a communication with the internal auditory foramen, by

which the matter had found its way to the base of the skull, as above described. The roof, and posterior wall of the mastoid cells were perforated by the carious disorganization, by a number of small holes, particularly the posterior wall, which forms the fossa for the lateral sinus, so as to give this part of the bone a worm-eaten appearance; and through these foramina, matter had passed and burrowed between the *dura mater* and the cranium."

We think that the foregoing account is in many parts needlessly minute, and may fall under the bitter sarcasm, levelled by John Bell at certain anatomical descriptions. However, it is better to sin this way, than by laxity and negligence, the besetting sin of most pathological writings in this country.

Case 4. OTORRHOEA — CARIES — EXTENSIVE DISORGANIZATION OF THE BRAIN.

"Harriet Ranyam, aged 19 years, of delicate health from infancy. Eight years ago she became affected with purulent discharge from the external meatus of the right ear, which was accompanied with severe pain on the corresponding side of the head, and about the occiput. The pain was very much aggravated when from any cause, the discharge was diminished, and particularly when it ceased, which happened not unfrequently.

"Dr. Wilnot saw her for the first time on the 29th September; she then laboured under a distracting pain on the right side of the head, about the occiput; the habitual discharge from the ear had ceased suddenly; the pulse was feeble and oppressed, and the tongue white and loaded; the stomach was irritable, and ejected a greenish fluid; the aspect of the face was jaundiced, and the strength much exhausted.

"Next day the bowels acted freely, and the discharge from the ear returned to a profuse degree; she was in a state of high excitement, apparently from reaction. Leeches were directed to be applied to the temples and behind the ears. From this period she grew worse, and, on

the 5th day, the pulse exceeded 120, and the skin was clammy. Leeches were again ordered, to the temples, during the application of which she turned upon the left side and expired.

"Sectio Cadaveris.—The dura mater was found to be detached from the petrous portion of the temporal bone, and on the posterior face were several small carious perforations which communicated with the mastoid cells and tympanum. The middle lobe of the right hemisphere of the brain was extensively destroyed by ulceration, and presented an excavation, like abscess, which contained about one ounce of offensive pus; the walls of this excavation were very dark and sloughy, and the surrounding medullary and cineritious substance softened.

"The temporal bone being removed for the further examination of the ear, it was discovered that the membrana tympani had been destroyed, and the incus and os orbiculare carried away by the suppuration, the malleus and stapes still remaining. The tympanum and mastoid cells formed one carious excavation, which communicated with the vestibule and semi-circular canals. The cochlea appeared sound."

This closes the paper, and our analysis. We return Dr. B. many thanks for the instruction it conveys, and we hope that our readers will profit by its perusal as well as ourselves.

XLVII.

MODE OF STOPPING HÆMORRHAGE BY
TWISTING THE MOUTHS OF THE VES-
SELS. By M. AMUSSAT.*

M. Amussat's encephalon must really be very prominent in the direction of the organ

of novelty, if the professors of craniology allow us any such. One day we find him using none but straight sounds and catheters; on another we read of his treating varicocele by tying the spermatic arteries; and at present he has hit upon a plan whereby to supersede the necessity for securing blood-vessels with ligatures. If the worthy gentleman goes on in this career we shall soon have an entirely new system of surgery! We have noticed already the former improvements or discoveries of M. Amussat, and we are now in duty bound to do the same by the last. It is chiefly embodied in an oral communication made by the author to the Royal Academy of Medicine of Paris.

Reflecting on the well known fact that lacerated wounds are frequently not followed by hæmorrhage, M. Amussat conceived the idea, that methodically twisting arteries might perhaps be attended with the same result. A number of experiments were accordingly made on dogs, rabbits, horses, &c. and the following proceeding found to answer the purpose. An artery being cut across, the extremity is seized by means of a pair of forceps, the branches of which are closed by a spring. The end of the vessel is dragged out from the surface, for the distance of five or six lines, disengaged from the neighbouring parts, then seized with the thumb and fore-finger of the left hand, and twisted five or six times upon its axis by means of the forceps in the right. The twisting ought to be continued till the portion of the vessel in the bite of the instrument is broken. The end of the vessel now forms a cul-de-sac, which resists the impulse of the blood from behind, and is seen and felt to pulsate strongly. The twisting appears to act by rupturing the middle and internal coats, which instantly retire into the interior of the vessel and form a sort of plug or valve, whilst the vessel itself looks like a stump, enveloped and capped by the cellular membrane. If the vessel before being twisted is not seized with the left hand, it is injured up to the next collateral vessel. M. Amussat has tried the method twice on the human subject, once after extirpation of the testicle, and once after amputation, with success. Such is the substance of the first communication to the academy; in the second some points are touched on more at large.

* Jour. Hebdomadaire, Nos. 43-44.
VOL. XI. No. 22.

In the first place, the effects of torsion or twisting are the same on arteries and veins; secondly, simple torsion, when employed to prevent hæmorrhage from arteries of considerable calibre, should consist of ten half turns; thirdly, that twenty half turns completely rupture the artery; fourthly, that after the complete or incomplete section of an artery the torsion should be made on each extremity; fifthly, that after a twisting methodically made we need never fear secondary hæmorrhage; sixthly, that torsion employed on the arteries of the dead human subject is attended with exactly the same effects, quoad the vessel, as in living animals, namely, the rupture of the inner coats and their retraction within the arterial tube, whilst the cellular membrane round them forms a kind of *capachon*; seventhly, that if the arteries are ossified, torsion breaks them; eighthly, that if we inject liquid into the twisted artery with whatever force we please, it does not escape by the twisted extremity, though sometimes the retracted inner tunics are driven out by the fluid, and the cellular membrane more or less distended; ninthly, that torsion has all the advantages of the ligature, *without* its inconveniences, and should instantly be adopted by army surgeons in particular.

In the discussion which ensued, the greater part of the speakers, among them M. Lisfranc and Baron Larrey, were opposed to M. Amussat's views. The opinions of Baron Larrey, in particular, are marked by good sense, and a rational estimation of the new proposal. The English reader cannot fail to perceive on how slender a foundation, practically speaking (two cases only) this plan for superseding the ligature has been built. It is true that experiments have been performed upon the lower animals, but, as M. Larrey justly remarked, such experiments, with regard to the properties of blood-vessels, are fallacious in the extreme. We all know how exceedingly difficult it is to make an aneurism by wounding the largest vessel in a brute, how readily the effect is produced in man.—Were the torsion or twisting adopted in operations on the human subject, very probably the immediate bleeding would be controlled in a great many instances, but would not secondary hæmorrhage be more likely to succeed? We believe most firmly

that it would, despite M. Amussat's dictum to the contrary. On the whole, it will require a vast deal more positive evidence than what is yet offered, to convince us even of the safety of M. Amussat's proposal.

LXVIII.

MR. STEPHEN'S VIEWS ON THE SUBJECT OF HERNIA.

In the last number of this Journal, page 109 *et seq.* we noticed an interesting work on Hernia by Mr. Stephens, and gave, or thought we gave, an even-handed measure of justice to the author. The following opinion appeared in our critique.

"No doubt can exist, nor indeed has at any time existed, that bowels confined by adhesions in hernial sacs will not go on with their natural functions so freely as when loose and floating in their native cavity. But the question is, will adhesions, *per se*, occasion a fatal obstruction to the office of the gut? Mr. Stephens says they will; and the issue is with him and his surgical brethren. For our own parts, we doubt whether such be the case, nor can we imagine that a patient will die from this cause alone. The case is very different when the adhesions are so arranged as to act like a stricture on the gut, or when the latter is so placed as, by being convoluted on itself, or in any other manner, to prevent the egress of matters from its cavity."

On the 24th of July, we received a letter from Mr. Stephens, in reference to the sentiments we have expressed in the preceding passage. Mr. Stephens observed, that he was "sure we would agree that it is the duty of a public journalist, if he should at any time express an opinion which he subsequently finds to be erroneous, or if he should dissent from the opinion of an author, whose judgment he should afterwards

find right, to rectify his error as soon as possible, and admit readily any evidence tending to establish truth, whether it may be for or against his opinion." Certainly such is not only the *duty* of a journalist, but should always be his *inclination*; we can say most sincerely that it is our's. But we have no intention of indulging in what may pass for vanity and egotism; on the contrary, we shall hurry, without further preface, to the consideration of two cases brought forward in his letter by Mr. S. as corroborative, or rather confirmatory, of the soundness and healthiness of his views. Both are recorded in our valued contemporary, the London Medical Gazette.

Case 1. This occurred in the private practice of Mr. Vincent, and is related in the number of the Gazette, for the 18th of April, by Mr. Burnett, house-surgeon to St. Bartholomew's Hospital. We cannot abridge the account in any material degree, and perhaps it would be more satisfactory to all parties, to give it in the words of the narrator.

"A robust and healthy-looking woman, fifty-six years of age, who had been in the habit of making such exertions as her trade, which was that of a grocer, required—had never been the subject of hernia, nor afflicted with any other complaint than a prolapse of the uterus, which she had had for many years, and which never gave her more trouble than the mere inconvenience which it produced. She had been a widow for many years. Although she had been accustomed to lift weights, still, from the nature of her complaint, these could not necessarily be very great; nor was she at all conscious of having made use of any force which could have accounted for the formation of a hernia.

"On the 23d of March she directed Mr. Vincent's attention to an inflamed swelling, somewhat larger than a pigeon's egg, which took its seat rather upon than below Poupart's ligament of the left side, and a little to the inner side of the external ring. It was moveable, and presented very much the character of an inflamed gland. But this superficial swelling, for

so I may call it, seemed to lie immediately upon another, which was deeper seated, and consequently more obscurely felt; though, when pressed upon, it gave considerable resistance to the finger, was perfectly immovable, and excessively painful on being touched. She had observed this swelling only the day before, since which she had not had any motion from the bowels, but had been in a constant state of sickness, accompanied by hiccup. The abdomen all over was tender on pressure, but at the lower part of the left side she complained of its giving her acute pain. The pulse was quick and strong. Mr. Vincent took away about fourteen ounces of blood from the arm, which afterwards became very much cupped and buffed. Mr. V. then ordered that she should take repeated doses of Epsom salts: but the stomach rejected every thing; in consequence of which, enemata were repeatedly administered, but without moving the bowels. She continued restless through the night, and on the following day, (24th,) at two o'clock, there did not appear to be any alteration in the symptoms. She had retained no food. On directing her to cough, no impetus was communicated to the part, while she at the same time voluntarily observed, that it gave her no pain.

"Considering all the circumstances of the case—the excessive tenderness, the constant sickness, the hiccup, and the constipated state of the bowels—Mr. Vincent thought (and those gentlemen who were present agreed in his opinion) that it would be advisable not to defer the operation of cutting down upon the tumor. An incision was accordingly made, an inch and a half or two inches long, commencing just below the external ring, and passing downwards and a little inwards upon the tumor. After the fat was divided, the first thing observed was an inflamed and enlarged gland, which seemed to block up the wound. This was divided, when another tumor came into view corresponding to the one which had been felt beneath. The operator raised the gland, and cutting horizontally upon this last tumor, which was the size of the tip of the finger, expected by so doing to

enter the sac of the hernia. The part had a black appearance and looked like a sac in which the circulation had been obstructed by stricture above. The division of this, however, only exposed another covering beneath, to which it was very firmly adherent. Mr. V. now raised a portion of this last covering with the forceps, as he had done the former, and, making a similar horizontal cut, when about an ounce of a turbid yellow urinous-smelling fluid gushed out. He now thought he had opened the sac of the hernia, and, after having enlarged the aperture, introduced the point of the index finger, and felt for the strictured gut, but there was none to be found—the sac was quite empty. He desired the patient to cough, but no impetus was given by so doing to the tumor, and the sac appeared to have no connection with the abdomen; but the opening under Poupart's ligament was plainly to be felt, and by passing a director upwards, in the direction of the sac, it was observed to enter the cavity of the abdomen.

"The patient did not express herself relieved by the operation, though the sickness left her for a time, and as there was no intestine or omentum to reduce, the wound was immediately closed by a ligature and some pieces of strap, after which she was placed in bed. Fourteen ounces of blood were drawn from the arm, the pulse being sharp; she then felt faint, but slept for about four hours. At the expiration of this time an injection was given, but it produced no effect, and she remained restless, though free from sickness.

"25th.—The sickness had not returned, and she was now directed to take calomel and colocynth by the mouth; but after these had been repeated a few times, the sickness returned, without their producing any evacuation by the bowels. The blood which had been drawn yesterday was not cupped or buffed; but there was still the pain and tenderness in the abdomen, and the pulse was beating about 90. Several injections were now repeated, but to no purpose; and in the evening she brought up, by vomiting, a great quantity

of matter which had the appearance, and she said tasted, of the injection.

"26th.—The night was disturbed by sickness, and she continued to bring up matter of the same character. Altogether she had vomited about three quarts of fecal matter. The abdomen was more tender. Two large blisters were now placed on each side of the abdomen; she felt considerably relieved by them, but this relief was not permanent—nor, perhaps, depending entirely on the blisters. Another injection was administered, which was the only one which seemed to be at all efficacious; it produced an evacuation of a quantity of hardened scybala, and the relief was great for the time.

"27th.—The sickness had gone off, and she slept occasionally through the day. The pulse was the same in frequency, but rather smaller. As there had been no evacuation from the bowels, she was ordered to take three grains of calomel and twelve of jalap.

"28th.—No evacuation from the bowels. The stomach could retain small quantities of farinaceous food, but she seemed lower, and her pulse was materially weaker. In the evening the sickness returned with greater violence; her anxiety was very great. An injection was given, which was retured without any thing. She was now ordered some pills containing calomel and opium, but the night was passed in increased restlessness and anxiety, and she died early the next morning.

"The examination was conducted by Mr. Vincent, in the presence of one of the female relatives. On opening the cavity of the abdomen, neither the peritoneum nor intestines were, to appearance, at all inflamed. Towards the lower portion of the ileum, in tracing it down, there was seen to be about an inch of its long diameter adherent to the neck of the sac, but only by about half an inch of the calibre of the intestine; which part was so firmly attached as to look as if it had been nipped. The inner coat about this part of the intestine was ulcerated; and there was a slight inflammation around; but the channel of the bowel was perfectly free, and its circumference opposite to

the part which was nipped not at all inflamed."

When we say that we are not convinced by the foregoing case, Mr. Stephens will probably consider us as unbelieving as the brethren of Dives in the parable. We do not see, however, why the mere adhesion for the space of an inch should be singled out as the cause of death, whilst the *nipping* of the gut and the ulceration of the inner coat are passed, or to be passed, in silence. Surely these morbid appearances could not have been produced by the adhesion, and if so, where shall we look for *their* cause? It appears to us that most probably the inflamed and altered portion of the gut, not comprising the whole of its circumference, was at one time involved in the sac and constricted by its neck. This is the most feasible solution of the difficulty, but even allowing it to be a true one we admit that the case is still obscure. At all events, we do not think it fair to advance the adhesions as the whole and sole cause of the symptoms and issue.

Case 2. This is related by Mr. Hewson in the Med. Gazette for July 18th, in a communication to the editor. Like the preceding case, it shall be given in the unadulterated words of the communicant, in order that our readers may perceive our wish not to blink the question.

"John Westfield, aged 55, of spare habit of body, admitted late in the evening of Thursday, May 28th, 1829, under the care of my colleague, Mr. Boot, senior surgeon to the Lincoln County Hospital, for a scrotal hernia of the left side. The tumour is of a pyramidal shape; the integument covering the herniary tumour has a natural appearance; is inelastic; but the taxis produces a gurgling noise, as in intestinal hernia; considerable pressure upon the tumor occasions no pain; he has hiccup, and eructations of air, with cold extremities. He states that he has been affected with a rupture for the last thirty years, which has usually been of the size of a pullet's egg. Early on Monday morning, the 18th* whilst in the act of throwing stones into a cart, he perceived the hernia suddenly to enlarge, more so than he had ever known it before: this was followed by slight pain of abdo-

men, and nausea: he has passed no stool since the Sunday (17th) preceding the descent of the hernia; prior to admission into the hospital, he vomited daily, and had pain of abdomen, with fever.

"He was immediately bled to 16 oz. which produced fainting; but the taxis failed to make any impression on the tumor. Cathartic clysters were given, with castor oil, which produced two slight evacuations, and cold was directed to be applied to the swelling.

"May 30th.—Restless night. Pulse 80, small and thready. He continues to vomit, and the egesta have a decidedly fecal character; no further evacuation by the anus; very little tension of the abdomen, on which pressure produces little or no uneasiness, but on the neck of the sac it produces pain; cold had been applied to the tumor, but was omitted at the patient's request, in consequence of its causing considerable pain; body and extremities cold. Ordered to have a cordial mixture, and cathartic clysters every four hours.

"31st. Bad night. Pulse 80, very small and thready. Hands and face very cold. Generally lies upon his left side; when lying on his back, he invariably begins to vomit; the clysters return unaltered.

"June 1.—Has passed a very restless night. Pulse 80, very feeble. Constant eructations of air. Complains of more pain across the region of the bladder, and along the course of the transverse arch of the colon. Vomits much stercoraceous matter. No stools.

"2d.—Has had a better night, with less vomiting. Can take nothing but a little wine and water.

"3d.—In every respect the same. Has had a purging stool. Pulse 80, small and thready.

"4th.—Slept but little; was not restless. Pulse 84, scarcely perceptible. He constantly lies upon his left side, with the trunk bent. He is gradually sinking.

"5th.—Died at 7 o'clock this morning.

"*Post Mortem Examination 5 hours after death.*—On opening the cavity of the abdo-

men, sero-purulent fluid was observed between the agglutinated folds of inflamed intestine; the great omentum twisted together, as if slightly encircled with a string; the whole of the intestinal canal exhibiting marks of inflammation, and distended with air and feces. The arch, ascending and descending portions of the colon, were more particularly inflamed and distended; the peritoneum lining the abdominal muscles not inflamed; the common integuments of the herniary tumor quite natural in appearance; the fascia superficialis and sac much thickened, the latter contained very little fluid; the sac contained a considerable portion of omentum, about the size of a turkey's egg: this was healthy in appearance, slightly inflamed, and adherent to the mouth of the sac only. No intestine was found in the sac, but a portion of the ileum had become adherent to the omentum by its peritoneal surface at the mouth of the sac. This portion of intestine had a very dark appearance, but it regained its natural colour after immersion in spirits of wine. The calibre of the gut was not at all diminished or interrupted. The hernia was congenital, the omentum in the sac being in contact with the testicle.

"As the omentum had a healthy appearance, I am of opinion that the adhesions were formed in consequence of the last descent of omentum, and that this case distinctly points out the danger of allowing omentum to remain for any length of time in the sac of a hernia.

"In the above case there was no stricture or diminution of the calibre of the gut, but a simple adhesion between the omentum and intestine, yet this proved amply sufficient to produce derangement of the functions of the alimentary canal, and ultimately death, with all the symptoms of incarcerated hernia."

Now really we think this case more opposed to Mr. Stephens' views than the former. A man of 55, affected for thirty years with a rupture some of it apparently irreducible, receives a strain, perceives the hernia suddenly enlarge, and is instantly attacked by symptoms of strangulation or peritoneal inflammation. Little seems to

be done for ten days, when he enters the hospital with irreducible tumour, obstinate constipation, vomiting, abdominal tenderness, small thready pulse, and hiccup. No relief can be afforded either locally or generally, and eight days after admission he dies. On examination the evidences of general peritoneal inflammation are apparent, and omentum is contained in the sac and adherent to its neck, where also it had contracted an adhesion to a portion of the ileum.

We cannot see a shadow of justice for assuming that the adhesions were the cause of the fatal issue of the case, nor indeed that they had any thing to do with it—Most probably the connexion of the omentum to the neck of the sac had existed as long as the rupture itself, and yet not a particle of danger did it give rise to, during the whole of that period. It is assuming too much to assert that the omento-intestinal adhesion produced the general inflammation; on the contrary, we believe that the general inflammation was the cause of the adhesion. We are told in the commencement of the account of the examination, that folds of intestine were *agglutinated* together. There is nothing unusual in this, but why should *their* adhesions be overlooked? It would be droll pathology to conclude, on examining a case of peritonitis, that the adhesion of the intestinal convolutions which we commonly find, were the *cause* of the inflammation. And yet it is precisely this kind of argument, *a posteriori*, that would lay the peritonitis, in the present instance, to the door of the adhesion between the omentum and the ileum.

Thus, then, we have fully noticed the cases to which Mr. Stephens has directed our attention. The opinions we have drawn from them differ from his, but still Mr. Stephens may be in the right. Not filling the chair of St. Peter we cannot lay claim to infallibility, but we hope that none will blame us for candidly avowing the sentiments we entertain on this interesting subject. Our brethren will decide on the justice or fallacy of Mr. Stephens' views, and whichever shall ultimately be found to

be the case, will be equally satisfactory to us, for truth must be the gainer.

XLIX.

POISONING FROM MEDICINE PRESCRIBED BY MISTAKE.

Two very melancholy instances of poisoning have lately occurred; the first in France, the latter in this country. If they were not expressly calculated to teach caution, where caution is preeminently required, we should not think it necessary to notice them in these pages, for a newspaper is the proper vehicle for the ordinary run of shocking occurrences. We have no peculiar taste for mere horrors ourselves, nor any desire to minister to such a penchant in the public, but when we can convey a salutary lesson it becomes an unpleasant duty to do so.

It seems, then, that on the 26th of May, Dr. Buet, of Paris, was summoned in the evening to attend a little girl, *etatis* five, child of a M. Gohyer, who laboured under fever of an intermittent type. Dr. Buet determined to prescribe the *sulphate of quinine*, and as the stomach was irritable he thought it better to give it in the form of glyster. He accordingly wrote the following prescription.

"R. *Sulphate de Morphine*, gr. x.

"*The apothecary is to add two or three drops of sulphuric acid in order to render the sub-sulphate soluble in a glass of water, which is to be given as a glyster to the child.*"

The above prescription was given to Madame Gohyer, without Dr. Buet's perceiving that he had written *morphine* instead of *quinine*, and it was sent by the lady to the apothecary. He returned it to ascertain whether the quantity of the sulphate of morphine was correctly stated, and the mother assured him that it was, having heard Dr. Buet mention ten grains. All doubts were removed, and the fatal enema administered to the child. In the course of ten minutes it began to sleep, and shortly afterwards it was seized with such alarming convulsions, that Dr. Buet was hastily

summoned. The error was now discovered, and the scene that ensued would seem to have begged a description. Other medical men were summoned, and purgative glysters, with vinegar and water, were administered or tried to be administered in the interim. When all had collected, purgative enemias with coffee and vinegar, &c. were had recourse to, but without effect, and at 9, p. m. the little patient expired.

M. Buet, who communicated this melancholy case to the Editor of the *Clinique*, concludes by observing, that he leaves to his brethren the task of condemning him for the sad mistake of a word he made in the prescription, a mistake which can only be laid to the weakness, or rather the *vertigo* of the human mind. Alas! the anguish and punishment, both moral and personal, of such mistakes are severe enough, God knows, without the gall and worm-wood of professional crimination! We would merely remark, that no prescription should ever be committed to the hands of the chemist or assistant before it has been carefully read over. This simple precaution might prevent a great portion of those errors that are constantly committed, though not on such a scale as to peril life.

The next case which occurred at Finchley and was made the subject of a coroner's inquest, is fully related in the *Times* newspaper, for September the 9th. We shall not detail the particulars but merely glance at the leading facts.

It seems that a Mrs. Phillips of Finchley, married only five months, sent for Mr. Snow, an apothecary at Highgate, on Sunday Sept. 6th. Mr. Snow being in Hertfordshire, Dr. Tweedie of Ely Place, Holborn, visited the patient for him, and found her suffering from disordered (*disorganized* is the newspaper version) bowels and stomach with nervous irritability and flightiness. On Dr. Tweedie's return to Mr. Snow's he prescribed some medicine for the lady, which was compounded and sent by Mr. Hill, the assistant. On Thursday Dr. Tweedie called again upon the patient, and found reason to alter the prescription, which then ran as follows:—

R. *Submur. hydr.* grs. ij. *Ext. coloc.* co. gr. viij. *Olei carui.* gtt. ij. *Contunde et fiant pilulæ duæ, h. s. s.*

R. *Infus. cascar.* ℥ij. *Infus. senna,* ℥ijj. *Manna,* ℥ss. *Tinct. gentian,* co. ℥j *Misce.* *Sitmistura, cujus capitul. coch. tria, ampla ter quotidie.*

For Mrs. Phillips, 3d Sept. 1839. A. T.

The mixture from the assistant purporting to be the above, was received by Mrs. Phillips on Thursday evening, and early on Friday morning when her husband left her, she appeared quite well. On his return, however, about eleven o'clock at night, he was informed that she had been very unwell, and being oppressed with drowsiness had retired to her chamber some time. Another surgeon, Mr. Hammond, had been sent for, but he also was absent and his assistant came, who, on seeing Mrs. Phillips, observed that the drowsiness was produced by the mixture she had taken, and that if not disturbed she would be better in the morning. The husband accordingly retired to rest without awaking her, but when the morning appeared he found her a corpse by his side! Various medical men were summoned in haste, and Mr. Hammond, who examined the mixture, said that it was chiefly composed of laudanum. Dr. Tweedie too, on his arrival, declared on tasting it that it was not composed according to his prescription, which has been shewn already to have contained no laudanum whatever.

On examining the body, the brain was found to be more vascular than usual; the blood-vessels of the membranes were turgid with blood, and presented a slight milky effusion—the thoracic viscera were sound—the coats of the stomach were inflamed in patches—the intestines were perfectly healthy. From this *post-mortem* examination Dr. Tweedie gave in evidence his opinion, that the deceased's death was occasioned by her having taken an over dose of laudanum.

Mr. Swan Hill, the assistant, swore that he had made up Dr. Tweedie's two prescriptions—that there was no laudanum in either of them—that they were sent with proper directions—that he made up no other prescription on the Thursday, and that there

were no bottles of laudanum on the shelves in the shop. This gentleman is 25 years of age, has served five years' apprenticeship to a chemist, and has been in the habit of compounding medicines since his apprenticeship, which is upwards of three years.

The inquest lasted ten hours, and the verdict returned by the Jury was, "that the deceased's death was occasioned by an over-dose of laudanum taken medicinally."

Without attempting to fasten blame on any individual for this melancholy catastrophe, we cannot but remark that the supposition of the deceased having taken laudanum as a poison, appears to us to be next to incredible. The poor lady had only been five months married, was by all accounts living happily with an affectionate husband, and was even proved to be particularly solicitous about her health. The production, too, of Dr. Tweedie's prescription exculpates this talented and amiable physician most completely from the charge of error or negligence. But how then did this fatal mistake, if such it was, occur? Could any thing have been employed instead of the compound tincture of gentian? God knows that the naked suspicion of such a circumstance is a fearful cloud on the mind and the prospects of a medical man!

We have been induced to give these cases in the hope that they may serve as a useful lesson to practitioners. We tremble to think how often the life of individuals hangs by the brittle thread of an ignorant apprentice or assistant's circumspection.

L.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR DIPLOMAS FROM THE ROYAL COLLEGE OF SURGEONS OF ED-
BURGH.

THE present is decidedly the age of me-

* Mr. Hill has since published a letter in the newspapers which proves that he *could* not have committed this or any other mistake. We communicate this fact with the utmost pleasure.—*Rev.*

dical legislation, every month sending out a new batch of laws from either English, Irish, or Scotch corporations. If wisdom is with laws, as Solomon said it was with counsellors, in their *multitude*, then decidedly we are the wisest medical community under the sun, for we really possess as many codes as all the rest of the world en masse. The mischief of it is, that the law of to-day is the dead letter of to-morrow, and the curricula of our colleges are perfect ephemerides, making a buzz in a summer's sun but resolved into their constituent elements ere nightfall. We really wish our legislating gentlemen would erect something solid, either good or bad, for really a despotism is better than an anarchy. What a happy thing it would be for the nation, we mean of course the professional part of it, if a little of the *immutability* of the Medes and the Persians would infuse itself into the collective wisdom of Lincoln's-Inn Fields, or that some surgical Napoleon would arise, and promulgate a codex with some sort of stability. However, being neither revolutionists nor radicals we bear our *oppressions*, to use the cant term, with much good nature, and are disposed to be thankful for any good that may emanate from the powers that be.

The little pamphlet whose title precedes these observations has been sent us from Edinburgh, and deserves to be noticed in this Journal. After earnestly recommending the parents, guardians, and masters of young men about to enter the profession, to enjoin and enforce a good preparatory education in Latin, Greek, the modern languages, mathematics, and natural philosophy, the College proceed to lay down the following rules:—

"SCHOOLS OF MEDICINE,—COURSES OF LECTURES,—QUALIFICATION OF TEACHERS, &c.

"Every Candidate for a Surgical Diploma must have followed his Studies in a University; or Established School of Medicine; or in a Provincial School specially recognised by the College, and which shall conform to such laws and regulations as have been, or may hereafter be enacted.

"Under the title Established School of Medicine, are comprehended all places in this country, where Diplomas in Surgery are granted, and such foreign Schools as are acknowledged by the constituted authorities of the countries where they exist.

"No Provincial School shall be recognised where there is not a General Hospital, containing at least eighty beds, at which regular Medical and Surgical attendance is given, and *where there are not established Courses of Lectures on Anatomy and Chemistry.*

"No Course of Lectures given at a Provincial School shall be recognised, unless it be of the same extent and duration as the Course required on the same subject in Edinburgh.

"The extent and period of study allowed to be gone through at a Provincial School, will be regulated by the means and facility of study which the College receive evidence of its affording; but, in all cases, at least two Winter, or one Winter and two Summer Sessions of the Course of Study required for a Diploma, must be passed at a University, or at one of the Established Schools of Medicine.

"In Edinburgh, the Lectures to be attended as part of the Surgical Curriculum shall be delivered by Professors in the University, or Fellows of the Royal Colleges of Physicians or Surgeons there: and elsewhere, by Professors of Universities, or by Fellows of the Royal College of Physicians of Edinburgh, and Fellows or Licentiates of the Royal Colleges of Physicians of London and Dublin, by Fellows of the Royal Colleges of Surgeons of Edinburgh, London, and Dublin, and of the Faculty of Physicians and Surgeons of Glasgow; and by persons holding a Medical Degree or Surgical Diploma, whose Courses of Lectures have been recognised by the College on special application.

"No tickets of a Professor or Lecturer shall be recognised, who teaches more than two of the branches required by the College; but Anatomy, with Practical Anatomy; and Chemistry, with Practical Chemistry, shall each, in reference to this Regulation, be considered as one branch.

"COURSE OF STUDY.

"Every Candidate for the Diploma of the Royal College, either previously to, or during his Medical education, must have received regular instructions in the *Elements of Mathematics*; and must have attended a course of *Mechanical Philosophy* of at least *three months'* duration, delivered by a Professor of that branch in a University, a Lecturer in a public Institution, or a Teacher specially recognised by the College.

"The Candidate must have attended the following separate and distinct Courses of Lectures during a period of at least *four* Winter Sessions, or *three* Winter and *three* Summer Sessions, provided that in each Summer Session he shall have attended one or more of the Courses prescribed or recommended by the College, exclusive of Hospital attendance, and also provided that the Summer Courses of Lectures shall not commence till after the conclusion of the Winter Courses.

Anatomy,	2 Courses,	Duration at least.
Practical Anatomy,	{ 1 Course,	Six Months each.
Chemistry,	{ or 2 Courses,	Six Months;
Practical Chemistry,	1 Course,	Three Months each.
The number of Pupils in each Class being limited to 25.	1 Do.	Six Months.
Materia Medica and Pharmacy,	1 Do.	Six Months.
Institutions of Medicine, or Physiology,	1 Do.	Six Months.
Practice of Medicine,	1 Do.	Six Months.
Clinical Medicine,	{ 1 Do.	Six Months;
	{ or 2 Courses	Three Months each.
During the period of attendance at the Hospital where they are delivered.		
Principles and Practice of Surgery,	2 Courses,	{ Six Months.
Or, { Do.	1 Course,	{ Six Months.
{ and Military Surgery.*	1 Do.	{ Six Months;
Clinical Surgery	{ 1 Do.	{ Three Months each.
	{ or 2 Courses	
During the period of attendance at the Hospital where they are delivered.		
Midwifery, and Diseases of Women and Children.	{ 1 Course.	Three Months.

* "The Course of Military Surgery must be delivered by a Professor of that branch in a University; or by a Lecturer, who, in addition to the other required qualifications, has served in the Medical Department of the Army or Navy; and the Course of Lectures must be of at least *six months'* duration, Lectures being delivered at least thrice per week."

"With the exception of the Courses of Clinical Medicine, Clinical Surgery, and Military Surgery, in which Lectures are not delivered daily, the *six months'* Courses, delivered in Edinburgh by Fellows of the College, or others, are understood to consist of five Lectures per week for a period of not less than five months.

"Two *London* courses of three months each, on any of the above subjects, shall

be taken as equivalent to one *six months* course.

"The Candidate must also have attended for *eighteen* months a Public General Hospital, containing at least eighty beds; or for *twelve* months such a *Public General Hospital*, and *six* months a *Medical or Surgical Hospital*, or *Dispensary*, recognised by the College on special application.

"The Candidate shall be required, in

addition to the Tickets or proof of entry to the different Classes, to produce *Certificates*, of his having attended these Classes, from the respective Professors or Lecturers; and in the case of Practical Anatomy, the Certificate must express that the Candidate has been actually engaged in the dissection of the human body, under the personal superintendence of the Professor or Teacher, during the course of his attendance.

"The candidate, at the commencement of his examination, will be required to translate into English some portion of a Latin author.

"The following Order of Study is recommended as a guide to the Student, though not absolutely enjoined.

"First Year, ANATOMY—CHEMISTRY—MECHANICAL PHILOSOPHY, if not previously attended.

"Second Year, ANATOMY—PRACTICAL ANATOMY—INSTITUTIONS OF MEDICINE OF PHYSIOLOGY—SURGERY—MATERIA MEDICA and PHARMACY—either in this or the Third year.

"Third Year, PRACTICE OF PHYSIC—CLINICAL SURGERY—PRACTICAL CHEMISTRY—HOSPITAL.

"Fourth Year, SURGERY—OF MILITARY SURGERY—MIDWIFERY and DISEASES OF WOMEN and CHILDREN—CLINICAL MEDICINE—HOSPITAL.

"Besides the Courses of Lectures on the different Branches of Medicine required by the College, they strongly recommend to Students to avail themselves of the opportunities they may possess of attending Lectures on MEDICAL JURISPRUDENCE, BOTANY, NATURAL HISTORY, COMPARATIVE ANATOMY, and PATHOLOGICAL ANATOMY.

"The Duration and Course of Study to be required of Apprentices, whose indentures commenced before 1st January, 1823, are still regulated by the laws in force previous to that date: The course of study of Apprentices and others, who entered upon their indentures or their medical studies generally after that date, and before 1st August, 1829, will be determined by the rules in force within this period:—The present regulations as to *Endurance and Course of Study* shall take effect as to all who enter upon their medical education after the last mentioned date.

"The regulations as to *Lecturers, Teachers, &c. &c.* are to take effect immediately.*

We cannot but acknowledge the general good sense that marks the foregoing resolutions, although the keen eye of private interest may, perchance, detect some minor objectionable points. The time, thank God, is passed for ever, when endeavours to improve the education of the rising professional youth of these isles were met by a storm of invective, lies, and bitter denunciations, in short, with all the ichor of festering, cancerous malignity:—

Not urged by fear, nor through misguided sense—
Blind zeal and starving need had some pretence—
But for the good old cause that did excite
Th' original rebel's wiles, revenge and spite.

The proposers of measures need not now entertain any dread of the foulmouthed ravings with which they were wont to be assailed; but they are, and must ever be, amenable to the temperate expression of public opinion. We perfectly agree in the propriety of refusing to recognise any provincial school in which anatomy is not regularly taught, for nothing can be more preposterous than excepting attendance on a county hospital, from a pupil who has never had the means of becoming systematically acquainted with anatomy. Surgery can neither be practised nor understood by a person ignorant of anatomy, for the former is essentially bottomed on the latter, and is quackery without it. We have seen enough of the evil effects of hospital attendance under such circumstances, to have implanted the conviction of its mischiefs deeply in our minds, whether it be the popular opinion or not. At the same time we cannot perceive the necessity for making chemistry a *sine quâ non*, and we think, on reflection, that the framers of the curriculum will erase it from the list of essentials to a provincial school. Of course we do not say that chemistry should be neglected, far from it;

* The further particulars respecting the Registration, Examination, and Rate of Fees, are matters of local interest, which do not come within our province.—REV.

but why should it *only* be named with anatomy, as requisite to be taught in the provincial school. Surely it may be obtained during the "two Winter, or one Winter and two Summer Sessions" to be *subsequently* passed at a university or established school. We cannot understand the *gist* of the regulation. No candidate, we are told, can be tolerated, unless he has received regular instructions in the **ELEMENTS OF MATHEMATICS**. Now really, though mathematics are excellent things, we do conceive that an amputation may still be performed by a surgeon, albeit he is unable to square the circle or the hypothenuse! With all due deference to the Examiners, we venture to say that they are travelling out of their beat, when they *insist* on this or that item of education not strictly connected with the profession. Their object and their office is to examine who are capable of acting as **SURGEONS**, not **SCHOOLMASTERS**! A good general education, and mathematics as a part of it, is a very desirable thing, but though it may be strongly recommended, and enforced to a certain degree, there is a Rubicon beyond which a body in the situation of the College of Surgeons should hesitate to venture. It is to be remembered that a large number of those who will appear at its tribunal are destined to minister to the lower and the poorer classes, who will not, nor cannot, afford a remuneration for the acquisition of *accomplishments*. If the expense of medical education be carried beyond certain limits, many will despair of

conquering the obstacles that the *res angusta domi* has planted in their path, and either abandon the profession altogether, or practise it in an unqualified and empirical manner. The poor will thus become the prey of quacks.

The remainder of the regulations appear to be very good, except that they are slightly tinctured with the taste for including every thing. We would say ourselves that some time might be judiciously clipped from the more extraneous branches, and added to that for the study of anatomy and the attendance on the medical and surgical lectures. As much time, for instance, is ordered to be devoted to chemistry as to the practice of physic, and half as much as to anatomy. These, however, though objections, are of a very venial cast, and the whole tenor of the present curriculum evinces a deep and sincere desire on the part of those who framed it, to promote the interests of science and the respectability of their successors. Such disinterested motives are praiseworthy in the extreme, and will ensure the cordial co-operation of every one who loves and honours his **PROFESSION**. If the details are not perfect, the defects can be easily remedied as occasions offer; but the principle being good, no one but a fool or a knave would cavil at trifles, or try to overturn the whole for a flaw in a part.

The tampering world is subject to this curse.
To physic their disease into a worse.

CLINICAL REVIEW.

LI.

ST. GEORGE'S HOSPITAL.

DISEASES OF THE HEART.

Every day convinces us more strongly of the prevalence of diseases of the heart and great vessels, of the general ignorance that prevails in the bulk of the profession re-

specting them, and of the lamentable consequences resulting from that ignorance. We think we are within the mark, when we calculate that one-third of those who die beyond the age of forty-five, are cut off by one or other form of these maladies, and that they constitute, as it were, the *phthisis* of middle and advanced age. The better classes of society are affected in no very unequal ratio from the lower, for although they are not so much exposed to violent bodily exertions as the latter, yet the mind is more placed upon the stretch, and the

keener sensibilities conferred by education and refinement prove a source of misery and ill, as well as of salutary gratification :

"Still carried to excess in each domain,
The favourite good begets peculiar pain."

We know not how it is, but these diseases are too often regarded as matters of speculation and curiosity, rather than of practical importance. We think such an estimate not only a false one, but pernicious in its consequences both to patient and practitioner. It is destructive to the former, because his case is mistaken, and consequently mistreated, his sufferings aggravated, and his death too often hastened by injurious measures ; and it is equally dangerous to the latter, because it either lulls him into a supine confidence, or hurries him on to fatal rashness. We are far from endeavouring or wishing to draw an overcharged picture of the evil effects of neglecting the study of diseases of the heart, nor of the ignorance respecting them that prevails amongst the mass of the profession. By far the greater proportion of the cases that daily present themselves at the hospital have been mistaken, and surely no words can convey a more cutting sarcasm than the naked fact. The sins of the medical man, both of omission and commission, are buried to be sure, within the walls of a public establishment when his patient is transferred to it, but the matter is otherwise in private practice. Rival practitioners are disposed to do any thing but whitewash a brother's errors.

The general symptoms of morbid affections of the heart are often very distinct, but they are also frequently obscure. When the disorganization has proceeded to the extent of inducing dropsy, the indications will, in most cases, be tolerably clear to any one at all conversant with the diagnosis of disease. When, however, the dropsy is absent or inconsiderable, which it may be with serious alteration of the heart, the diagnosis is by no means so easy by the ordinary symptoms. It is this description of cases which is constantly treated for dyspepsia, hypochondriasis, asthma, or any other convenient scapegoat that may offer.

It is here too that auscultation proves of essential service, and frequently detects organic disease which had passed the ken, and eluded the tact of well-informed and experienced men. We lately saw a very good instance of this in the person of a gentleman who had taken the first advice, and been assured that no organic alteration of the heart existed. A very few minute's examination with the cylinder proved, unfortunately with too much certainty, that he laboured under passive dilatation. We have made these few remarks with the conviction that they are essentially correct, and that candour can give offence to none. We shall esteem ourselves happy if any thing we can say will stimulate more able labourers than ourselves to cultivate the vineyard.

In our last report, we detailed two cases of what may be roughly considered as passive dilatation of the heart. We shall now give the particulars of some others of a different description.

Case 1. HYPERTROPHY, APPARENTLY WITHOUT MUCH DILATATION, OF THE LEFT VENTRICLE—CEDEMA.

James West, *æt.* 40, a carpenter, admitted, June 16, 1829, under the care of Dr. Chambers.

Face leuco-phlegmatic and puffy—slight ascites—cedema of scrotum and legs—shortness of breath, increased on exertion, especially ascending stairs, &c.—orthopnoea—starting from sleep, which is broken and bad—pulse full, strong, and rather irregular—skin rather warm—tongue furred—bowels open—urine scanty and high-coloured.

Attacked five or six weeks ago with dyspnoea and palpitations, which have since continued—legs swelled about the same time, or shortly afterwards—enlargement of the scrotum and abdomen of a fortnight's duration. He attributes his illness to cold and wet, but has never suffered from acute rheumatism ; his occupation has been an extremely laborious one.

On examination with the cylinder, the impulsion from the ventricles was considerable, the sound of both prolonged, and that of the left so rough as to approach to the

bruit de scie. The heart's action, however, was not heard over a very extended space. The prolongation and roughening of the ventricular sound distinctly pointed out hypertrophy, chiefly of the left chamber; from the sphere of the heart's action not being greatly increased there was probably not much dilatation of the cavities, though, no doubt, that of the left ventricle was augmented to a certain extent.

V. S. ad ̄xiij. Potass. supertart. 3vj. omn. mane. Haustus nitri, c. Tinct. digit. ʒ℥x. bis die. Dieta parcissima.

The blood drawn was not cupped or buffed, but the force of the pulse not being subdued he was bled again to ten ounces on the 19th, and, on the 22d, was ordered eight grains of blue pill and two of root of squills for two successive nights. On the 24th, the pills were ordered to be continued every night, and the digitalis struck out from the nitre draught. The cream of tartar working him too much, the quantity was reduced to one-half, and on the second of July, the mouth being sore, the mercurial was discontinued. On the 8th, a belladonna plaster was applied to the precordia; and on the 15th, being free from swelling, he was made out-patient at his own desire. The conclusion of the case in the ward book, received the significant mark from Dr. Chamber's of "heart hypertrophic."

The case exemplifies well the temporary relief that rest and remedial measures will confer on these patients, even when the disease has made considerable progress. Were the individual in such circumstances as to command repose both of body and mind, he might probably enjoy many years of comfort, or even attain a considerable age. In the present case, however, we dare not entertain any hopes of this kind, for the patient must return to a laborious employment, and be subjected to those domestic anxieties and discomforts that press heavily on the minds and bodies of the lower classes.

Case 2. HYPERTROPHY, WITH SOME, BUT NOT EXTREME, DILATATION—ANASARCA, ASCITES—ENLARGEMENT OF THE LIVER.

W. Moon, æt. 32, servant to a brewer, admitted, June 24, under the care of Dr. Chambers.

Fate fallow, rather puffy, and pallid—some ascites—œdema of legs and scrotum—shortness of breath, especially on exertion—orthopnoea—startings from sleep—action of heart violent, and communicated strongly to carotids—pulse active and strong—tongue clean—urine scanty, and depositing pink sediment—epigastric portion of the liver feels enlarged and indurated. He leads a laborious life, is exposed to alterations of temperature, and drinks more porter than is absolutely good for him.

Has suffered for many months from shortness of breath and some degree of orthopnoea, but was not decidedly ill till within the last twelve weeks, when palpitations of the heart and swelling of the legs came on. The ascites has appeared within the last fortnight; he has never had rheumatism.

R. Cal. gr. iij. Elater. gr. ʒ. o. n. Mist. Camph. 3xj. T. Hyosciam., Sp. Feth. Nit., Sp. Junip. c. ʒā 3ss, 6tis horis. Dieta lactea.

In the course of two days the anasarca and ascites had almost disappeared, and the orthopnoea, as well as the dyspnoea, were relieved. On examining the chest, the action of the heart was not heard over any very great extent, but the impulsion of the left ventricle was powerful, and its sound rather dull. *Hypertrophy, without much dilatation of the ventricle.*

On the 1st of July, in consequence of the hepatic disease, he was ordered to rub in the mercurial ointment, which affected the mouth by the 10th, and was then discontinued accordingly. On that day, we find by the report that the swellings were gone, that the calomel and elaterium produced four or five motions daily, and that the action of the heart was less violent.

18th. Face puffy—pain in the epigastrium and præcordia—pulse at wrist strong—action of the heart tumultuous. On examination again with the cylinder, the

sound of the left ventricle was duller and more prolonged than of the right, and its impulsion greater than before; the sound of different chambers was heard as high as the right clavicle, although faintly. *Hypertrophy and dilatation, particularly the former, on the increase.*

On the 20th, the calomel and elaterium were omitted, and on the 24th, the mercurial inunction was resumed. On the 27th, the dyspnœa and orthopnœa were again more severe, there was "tickling" cough, and occasionally distressing flatulence at the stomach. The camphor mixture, with the hyosciamus, &c. were exchanged for colocynth and galbanum pills, with camphor mixture simply. A few days afterwards the anasarca returned—the face was more swollen—the functions of the stomach more disturbed—the mouth rather sore. The impulsion of the left ventricle is very great, and the sound so rough as to approach to a *bruit de soufflet*. To the right of the sternum (patient lying on his back) the sound is clearer, and the impulsion greatly diminished. *Hypertrophy and dilatation of left ventricle increasing with the march of the disease.*

R. *Hyd. sub. gr. iij. ter die in form. pil. Infus. aurant. c. ʒiiss. Potass. supert. ʒj. Ext. tarax. ʒj. Spir. æth. nit. ʒj. ter die, hor. elaps post pil. sumpt.*

Aug. 1st. Worse in all respects, and has suffered from vomiting, which was arrested by an opiate draught. He was so obstinately bent upon leaving the house, evidently from the terror of dying and being examined after death, that he was dismissed on the third, in a very pitiable and hopeless condition.

Having given these cases of hypertrophy, apparently uncombined with dilatation to any amount, we shall now relate two instances of the rheumatic affection of the heart. The pericardium would seem to be affected *par excellence* in these cases, and, in most of them, the two layers of that serous membrane become adherent. The symptoms of adhesions of the pericardium have always been considered obscure, and no doubt they are so, but by bearing in

mind their frequent connexion with acute rheumatism we possess a clue of no inconsiderable value in surmising their existence.

Case 3. ADHESIONS OF THE PERICARDIUM—DILATATION OF THE HEART—DILATATION WITH HYPERTROPHY OF LEFT VENTRICLE—ACUTE RHEUMATISM TWO YEARS PREVIOUSLY.

Henry Hall, æt. 33, a brush-maker, admitted, July 15th under Dr. Chambers.

Face pallid and anxious—person rather emaciated—œdema of lower extremities—dyspnœa—much wheezing after exertion—orthopnœa—startings from sleep—turbulent action of the heart, which is felt and seen beating over a larger space than natural, and communicates an undulatory motion to the epigastrium—pulse 120, small and soft—skin cool—tongue slightly furred but moist—bowels open from medicine—urine free and of natural appearance.

Nearly two years ago had rheumatism for several months—has had palpitations and dyspnœa since Christmas last—subsequently entered this hospital for dropsy, which came on in January—left the house relieved, but not cured—has been getting worse during the last five weeks.

Emplast. canth. lat. sinist. Pil. scill. c. ʒss. Pil. hyd. gr. v. M. omni nocte sum. Inf. gent. c. Aq. pur. āā. ʒvj. Sp. æth. nit. ʒj. Mag. sulph. ʒij. ter die. Dieta ordinari.

17th. Seems much exhausted by frequent action of the bowels—legs much less swelled—heart palpitates much—pulse very small, weak, and frequent—skin cold—urine scanty.

Perge, intermiss, mag. sulph. Gill of gin in pint of water daily.

On the 20th the pulse was strong and frequent, and he complained of pain in the left side of the chest, with increased dyspnœa. He was bled to ten ounces, and an opiate prescribed on the 21st, for the blood was neither inflamed, nor the patient relieved by its abstraction. On the 22d a blister was applied to the right side of the chest, and on the 24th it was repeated, with an opiate at night, and the

addition of five minims of laudanum to the original draught. On the 27th, he was evidently sinking, the surface being cold, the mind in a state of torpor, and the respiration accompanied with the râle of the dying. Brandy, &c. were administered but he died that evening.

From accidental circumstances, we had no opportunity of examining him by the stethoscope. He was considered to labour under enlargement of the heart, and Dr. Chambers suspected adhesions of the pericardium. The reasons for this suspicion, were, the rheumatic origin of the disease, and the extensive convulsions, as it were, of the intercostal spaces during the action of the organ.

Secutio Cadaveris. The pleuræ on either side were universally adherent; on the left, so closely that their separation was almost impracticable. The left lung was imperfectly crepitous, gorged with blood in its inferior part, with serum in its superior; it swam in water. The right lung was still more filled with blood, crepitated even more imperfectly than the left, and in several parts was so consolidated (not exactly *hepatised*,) as to sink in water. There were no tubercles in either lung. The bronchial tubes were choked with frothy fluid, and their mucous membrane was congested.

The pericardia were universally and closely united by old adhesions; the membrane was not thickened. The heart was very large—cavity of the left ventricle dilated, and its walls hypertrophied; cavities of the other chambers augmented, but their parietes little altered; valves and aorta sound.

Liver rather large and of nutmeg colour on section—kidneys somewhat knotty but healthy—head not examined.

This case is one out of many, shewing how fallacious are the symptoms usually said to indicate hydrothorax. Here were dyspnœa, orthopnœa, startings from sleep, &c. in their acmé, and yet there neither was nor could be a single drop of fluid in the pleuræ or pericardium.

Case 4. RHEUMATISM—HYPERTROPHY

AND SOME DILATATION OF LEFT VENTRICLE—ADHESIONS OF THE PERICARDIUM.

Thomas Gilbert æt 15, a paper hanger, admitted May 6th, under the care of Dr. Chambers.

Person lean and aspect delicate—pain of limbs, without swelling, aggravated when hot and relieved by sweating, to which he is subject—strong action of the heart, with flattened thorax on either side of sternum, or what is vulgarly called the “chicken breast”—pulse small and frequent—skin moist and cool—tongue a little furred—bowels open—urine free. Ill for thirteen weeks with the pains in the limbs, accompanied for the first month or five weeks with swelling; has suffered from hæmorrhoids and prolapsus for the last two years.

Baln. tepid. ter in 7mâ. H. Sal. c. Tinct. Hyos. 3ss. 6tis. horis.

On the 8th, he was ordered a belladonna plaster to the præcordia, and on the 18th he had a fresh accession of rheumatic inflammation about the first joint of the little finger of the right hand, unaccompanied with effusion into the articulation. The pulse was frequent, but soft; skin cool by day, hot at night; tongue white; bowels open. *Calomel and opium, grs. v. to j.* were prescribed for two nights, with *senna draught*, and on the 20th the pain and swelling were relieved, but the calomel made him sick, and a drachm of the *vin. colchici in camphor mixture* was ordered every night with the *warm bath*. On the 22nd, he complained of sore throat, and on the 25th was prescribed, *cal. gr. iij. op. gr. j.* for two nights. Uneasiness and pain at the epigastrium now attracted attention and were treated with relief by poppy fomentations. On the 3d of June he complained of constant and distressing pain in the back of the head and neck, with anxious, pallid countenance, and full quick pulse. He was bled to ten ozs. and the blood shewed the buffy coat. The pain in the occiput, however, persisted, and was attacked by a blister.

On the 12th, we find, by the report, that the lad was extremely nervous, and the following note is made of the ex-

amination of the heart by the stethoscope. Action of the heart heard pretty generally over the chest, (the boy is thin)—action of the right chambers little, if at all, stronger than natural—not so that of the left; impulsion of the left ventricle considerable and its sound rough and grating, indeed closely resembling the *bruit de scie*. *Hypertrophy of the left ventricle, with some dilatation of its cavity*. On the 15th, the heart's action was very violent, the *bruit de scie* distinct, and an evident pulsation was perceived in the great vessels at the root of the neck on either side. On the 19th he complained greatly of pain in the back of the head and right arm, and was ordered the tincture of hyosciamus in salines every six hours, without other medicine.

24th. Has lately had a fresh attack of rheumatic inflammation about the right ankle, from which, however, he has almost recovered—still much pain in the occipital region—distressing flatulence.

Aq. Menth. Vir. Aq. pur. aa. 3v. Mag. Carb. ʒi. Vin. Col. ʒss. bis die.

The flatulence was mitigated by these means, but the pain in the occiput continued severe, and on the 26th a seton was inserted in the nucha, with the effect of relieving this most obstinate and unpleasant symptom. On the 6th of July the colchicum was discontinued, and in the early part of August he was made an out patient at his own request. Little alteration had occurred in the symptoms during this interval, and the only occurrence worthy of note in the treatment was the application of a blister to the left side, on account of pain there. At the time of the patient's dismissal the severer symptoms had disappeared, but his fate is probably sealed, and the disorganization of the heart will sooner or later go on to his destruction.

The existence of hypertrophy was very obvious, but the nature of the exciting cause of the disease and the extensive pulsation of the heart would incline a person to suspect pericardiac adhesions. We say suspect, for unfortunately no certainty at-

tends this part of diagnosis in our present state of knowledge. Though a frequent sequela of rheumatism, adhesions of the pericardium are not to be regarded as a constant one, nor are they to be viewed as the unvarying *essence* of rheumatic affection of the heart. In a report on the diseases of the valves we shall particularly notice a case, where, although the affection was clearly referable to rheumatism, not a particle of adhesion between the layers of the pericardium existed.

We intended to wind up the present report by some cases of marked hypertrophy and dilatation, but we fear that our space will scarcely permit us to proceed as we could wish. As the foregoing cases have been mostly instances of hypertrophy of the left ventricle unaccompanied with any very great dilatation, we shall, however, give an instance where the latter predominated.

**Case 5. GREAT DILATATION OF THE HEART
—DILATATION WITH HYPERTROPHY OF
LEFT VENTRICLE—DISORGANIZATION OF
THE LIVER.**

Richard Collard, æt. 36, a coach-maker, admitted Aug. 19th, under the care of Dr. Chambers.

Face puffy, phlegmatic, and bilious—anasarca of lower extremities—some ascites—dyspnoea—inability of lying on left side—strong and extended action of the heart—pulsation and undulation at the root of the neck—pulse 120, small, and rather hard—skin cool and clammy—tongue clean, bowels open—stools clay-coloured—urine dark and very scanty.

Ailing two years with loss of appetite and occasional palpitations at the heart—six months ago legs swelled, became excoriated, and discharge even at the present time—abdomen swelled about the same period—skin has been tinged yellowish for the last five or six weeks—urine has been scanty for a month. He attributes his complaints to distress of mind.

Ung. Hyd. Fort. ʒi. rcg. hepat. o. n. infri-cand. Haust. Niri. c. Spir. Æth. Nit. ʒi. ter die. Potass. Supert. Pulv. ʒss. o. m. Di. ordinar.

On the 31st a scruple of jalap was added to the supertartrate every morning, and spirit lotion was ordered for the legs.

24th. Has had three paroxysms of a mixed epileptico-apoplectic character. They occurred towards night, the longest was of two hours duration, and they were followed by deep sleep. At present he looks better, and the swellings are diminished—bowels open thrice in 24 hours. On the 26th he was not so well, had cough and troubled sleep, and the bowels were not open.

H. Senn. c. Tinct. Jal. 3iss. Potass. supert. pulv. ʒi. o. m, loco pulv. Potass. supert. &c. Emp. Canth. lat. sinist. Rep. alia.

On the 31st the blister was repeated and three minims of laudanum added to the diuretic draught. On the 4th Sept. the face was yellow; orthopnoea; sharp and rather full pulse. On examining the heart by the cylinder, the sound of the ventricles was rather rough, prolonged, and approximating to slight *bruit de soufflet*—impulsion considerable, especially of the left ventricle—dulness of sound on percussion over a large cardiac region. *Dilatation of the heart, hypertrophy and dilatation of left ventricle—very little, if any induration of semi-lunar valves.* There being some bruit over the clavicles, apparently in the aorta, *slight dilatation and commencing depositions were suspected.*

On the 3d the bowels being much purged and the stools bloody, he was ordered to omit the former medicines, and to take a draught of chalk mixture with five minims of laudanum after every loose evacuation. On the 4th the diarrhoea, or rather dysentery, was checked, the patient having had only one motion, not bloody, that morning. The lips were completely excoriated and excessively sore, the anasarca and ascites were less. *The nitre draught to be resumed, with the mercurial inunction—chalk mixture if the diarrhoea returned.* He now became rapidly worse, and was evidently sinking on the 6th. Brandy was administered, but he died on the 7th.

Section Cadaveris. Legs œdematous—face puffed and bilious—body much loaded with fat.

Thorax. About a pint, or more, of clear yellow fluid in the right side; two-thirds of that quantity in the left. Right lung gorged with serum, but not much blood; some parts more or less solid, without hepatization. Left lung œdematous, and in much the same state as the right, but not to so great a degree; no tubercles in either lung. Mucous membrane of bronchi, large and small, deeply congested, and the tubes themselves choaked with frothy serum.

About a couple of ozs. of clear yellow serum in the pericardium. Heart externally a very large one, and loaded with fat, particularly on the right side. Great dilatation of the cavities of the right auricle and ventricle, their parietes being little increased in thickness—still more dilatation of the left chambers and hypertrophy of the walls of the left ventricle, though not to an extreme degree. Valves and aorta sound.

Abdomen. Very little fluid in this cavity. Liver large, hard, granulated, and of the colour and appearance of yellow wax—kidneys large, pale and somewhat soapy in appearance—no ulceration of the intestines.

Cranium. Much transparent fluid between the arachnoid and pia mater—universally blanched, soft, and macerated condition of the brain, but no organic alteration—some clear, limpid serum in the ventricles.

The hypertrophy of the left ventricle, though shewn to be considerable on comparing the heart with a healthy one then upon the table, was scarcely so great as the powerful impulsion during life induced us to suspect. Did the fluid in the pericardium which probably amounted at one time to three or four ounces, caricature and exaggerate the heart's action? It will be seen that the stethoscope seemed to point out a slight dilatation of the aorta, from the *bruit* and somewhat powerful stroke above the sternum. We should mention that the stroke was not *simple*, that is, single like the pulse, but double and answering to the corresponding double systole of the heart. This is sufficient to account for the error, for although it was noticed at the time yet it was con-

ceived that the second pulsation might be merely communicated through the neighbouring parts, and not be an essential component of the indication. Laennec in his admirable work makes mention of a case, where the error was carried to a greater extent.

In 1819, says he, I was consulted in the case of a young woman, who had exhibited for eight months the general symptoms of diseased heart. I found the action of this organ regular, and accompanied by a natural degree of impulse and sound. The right and left præcordial regions sounded well on percussion; but immediately above these, the sternum as high up as the second rib, and the whole surface of the chest corresponding with the cartilages of the second, third, fourth, and fifth ribs on the left side, yielded a completely dead sound. Over the same space, the pulsations of the heart were much louder than in the cardiac regions, and were not *simple*. Notwithstanding this last circumstance, I imagined that there existed an enormous aneurism of the ascending aorta. I did not see the patient again: and she died a few months after my examination. Upon dissection, the aorta was found perfectly sound. The tumour which had destroyed the natural resonance of the chest, was the pericardium, enormously distended by sero-purulent fluid, and which extended to the top of the chest. *Third edit. Forbes's, p. 692.*

We should mention, that in the present case, the sound was much louder near the top of the sternum than in the central region of the heart, and we question much whether the fluid in the pericardium did not play the same part, though not such a first-rate one, as in Laennec's case. But this by the way.

We have thus comprised in the present report some cases of hypertrophy nearly simple, and uncombined with much dilatation—some cases of the rheumatic affection of the heart,—and lastly, a case of dilatation and hypertrophy. At a future opportunity we shall relate some interesting cases of valvular disease, and we hope to be

able to make some observations and collect some facts, that may facilitate the diagnosis of the diseases of the heart.

LII.

HOSPICE DE LA SALPÊTRIÈRE.

PARALYSIS, COLIC, VIOLENT HEAD-ACH, &c. CONNECTED WITH INTESTINAL WORMS.*

Every medical man of experience must have witnessed the frequent connexion of chorea and other convulsive affections with intestinal irritation, and particularly worms. These are more frequent in adults than is commonly imagined, and often prove a stumbling block to our morbid anatomists, who look for disorganizations and destructions in every case of head-ach or paralysis. The following short narrative may prove instructive to these ultra pathologists, or rather DISORGANISTS, for pathology is quite another thing.

Mademoiselle Niguet, a pauper of the Salpêtrière, was first attacked twenty years ago with violent colic and tenesmus, for which she could assign no cause. A purgative which was administered produced some copious stools and relieved the symptoms, but they soon returned with increased severity and baffled every means employed against them. In the midst of one of the colicky paroxysms, accompanied with violent contractions of the abdominal muscles, the left leg was suddenly struck with palsy, of which she still retains the traces. About this time also she began to suffer from permanent pain in the head and lumbar region, which disappeared or diminished when the colics returned. This was every month at the period of the catamenia, which, however, were perfectly regular, and the violent pains and tenesmus were only relieved after very abundant bilious evacuations.—When her distressing complaint had been

* Journ. Hebdom. No. 44.

established for some time she grew sallow, anxious, and desponding; her respiration was interrupted by a small dry cough; her pulse was feeble; her tongue white; her digestion extremely bad. Her existence, in fact, was rendered miserable by headaches, loss of appetite, thirst, constipation, and a paroxysm of colic every month.

which these parasitic animals, when once established in the intestinal canal will give rise.

LIII.

HÔTEL DIEU.

I. SUCCESSFUL EXTIRPATION OF THE UTERUS. BY PROFESSOR RECAMIER.*

We are happy to record another successful issue to this most formidable operation—and that in a public institution, where no colouring can be given to the facts—no veil of concealment thrown over the ultimate event.

In 1824, whilst labouring under one of these attacks of colic and tenesmus, Niguet passed by stool a worm which she compared to the bone of the ray fish, about two lines in breadth, marked transversely, and nearly half an ell in length. Abundant bilious dejections accompanied the expulsion of the worm, and the pains subsided. They soon, however, re-appeared, and terminated as before by the evacuation of bilious matters, in the midst of which swarmed many small living worms, nearly an inch in length, and marked like the first. In 1825 the patient voided, under similar circumstances, another flat worm of extraordinary length, and a third made its appearance in 1826, about six or seven inches long. She now consulted a pupil of the Salpêtrière, who gave her a decoction of the rind of the pomegranate, which she took, though irregularly, for a long time. No relief was obtained, and the patient being again seized in January, 1828, with the most insupportable colic, and voiding a fourth worm three quarters of an ell in length, she entered the Infirmary where the Indian method, *methode Indienne*, was had recourse to. The attacks of colic were by this means warded off for some time, but they have since re-appeared, and so have the other symptoms together with very fatiguing vomiting every morning.

Case. Agathy Pelagic, aged 50 years, was received into the Hôtel Dieu, on the 24th July, 1829, under M. Recamier. She had begun to menstruate at the age of 12 years, and did not cease to do so till she had attained her fiftieth year. Examined on the day of her entrance into the Hospital, the following was the report. 1mo. Slight pains were felt in the pelvis, and also in the loins—a sense of lassitude sufficiently distressing to prevent the perpendicular posture being long maintained. 2ndo. A discharge of sanious fluid, extremely fetid and sanguinolent, of about eight months' duration. 3tio. An examination shewed a loss of one of the lips of the os tincæ. The remaining one (the anterior) was thickened and ulcerated. The same alterations were perceptible in a certain portion of the vagina near the cervix uteri. This first examination did not induce any suspicion of adhesion between the parts affected and the rectum or bladder. On introducing the finger far up the rectum a tumour was found to occupy the situation of the uterus, and was concluded to be the diseased uterus itself. The various functions and the general health were in good condition. M. Recamier, who had once before extirpated the womb with success, determined on the operation in this case, and it was consented to without fear.

Whether the colic was, in the first instance, produced by the lurking tænia, or the tænia by the long continued colic and indigestion, is a question that is not to be readily solved. Worms will remain long dormant or at least produce no decided symptoms; but on the other hand, indigestion and morbid secretions will beyond a doubt predispose to their occurrence. At all events the preceding case displays the heterogeneous and violent symptoms to

* *Clinique.*

On the 26th July, at 7 o'clock in the morning, the patient was placed on a bed in the midst of numerous pupils and others, besides Messrs. Margolain, Breschet, Palrice, and Blandin, and the operation was commenced. M. Recamier first introduced an instrument (*pince de museux*) with which he seized the cervix uteri as high up as possible, and then dragged it down slowly and cautiously, the body of the uterus following it, till the whole came in view from the *os externum*. The artificial prolapsus thus effected, the operator fixed the organ in its new situation by means of another instrument (*pince erigne*) confided to the hand of an assistant. He then examined the rectum, and found that the gut had not come down with the uterus. He next introduced his finger between the anterior parietes of the vagina and the corresponding face of the retracted tumour, till he came to the junction of the two, when he introduced a bistoury with his right hand, divided the cul-de-sac at the spot above-mentioned, to the extent of an inch, and then withdrew the instrument. Through this wound the operator passed his finger, and divided some loose cellular substance till he came to the reflection of the peritoneum from the bladder over the uterus. This he divided with the bistoury once more introduced. The peritoneal incision was next enlarged, first on one side and then on another, with a probe-pointed bistoury. The operator having searched for the broad ligaments, he passed a ligature around each, to prevent hæmorrhage, and then divided them with the knife. The peritoneum passing from the rectum to the uterus was next divided, and the uterus itself dissected carefully away. The operation is said to have been conducted with remarkable sang froid,—to have occupied only twenty minutes,—and to have been succeeded by no hæmorrhage. The cervix uteri was found to be affected with open cancer; but the body of the uterus itself appears to have been very little affected. The patient bore the operation with unshaken courage, and fell asleep soon after she was put to bed. On the second day fever arose, and continued for two or three days, requiring several small bleedings. The fever ceased at the end of the fourth day, but was succeeded by a fixed pain in the right iliac region. Forty leeches were applied to this part, and the pain was reduced. The ligatures were removed on the fifth day, and on the sixth, there was tension and swelling of the abdomen.

Leeches were repeated. Nothing particular occurred till the ninth day, when, on examining the vagina, a fetid, dark, and sanguinolent fluid was found issuing forth. Injections were carefully thrown up during the next few days. By the twelfth day, when the account closes, she recovered some appetite, and had taken soup repeatedly. Should any thing further be published, we shall report it. Meantime the case may be considered as a successful one, as it is not now likely that the patient will die from the effects of the operation, which appears to have been performed with great skill and dexterity.

II. SUPPOSED FOREIGN BODY IN THE EAR—HYDROCEPHALUS—TUMOUR IN THE RIGHT OPTIC THALAMUS.*

MR. PRARSON, we believe, used to say that if he *must* be deprived of one out of the two means of information in a case, the history or the symptoms actually present, he would hold to the former and reject the latter. We cannot conceive a more injudicious decision, for no one can guard against the misrepresentations or mistakes of his patient respecting antecedent events; whereas most men can perceive what is actually before their eyes. Our own conclusions are, that in very few cases should we place much reliance on the history *per se*, unless it be corroborated or confirmed by existing symptoms. This is our own impression, and we have now had some little experience in case-taking. The following instance will furnish a useful commentary on our position.

Case. A child, about 10 or 11 years of age was brought by its parents to the Hôtel Dieu, with hemiplegia of the whole left side, and violent and painful retraction

* Journ. Hebdom. No. 40.

of the limbs on this side almost amounting to the tetanic spasm. On attempting extension of these parts the little patient struggled and screamed, and there was strabismus of the left eye. The parents declared that these symptoms had followed the introduction of the stone of a wild plumb into the left ear, many years previously, which stone could never be extracted. On carefully examining the part M. Dupuytren could neither see nor find any foreign body, and the general cast of the symptoms led him to suspect organic disease of the brain. A seton was made in the nucha and light purgatives employed, apparently at first, with good effect. General convulsions, however, came on—the contraction of the muscles of the left side became more painful—the evacuations were passed involuntarily—and three months after its admission, the patient died.

Dissection. No disease of the bones at the basis crani—*no foreign body whatever in the ear, which was sound.* The cerebral meninges were healthy, but the sub-arachnoid cellular membrane was infiltrated with serum, and much was also found in the lateral ventricles. In the substance of the right optic thalamus was a tumour the size of a small hen's egg, of rounded shape, reddish gray exterior, and marked with numerous rough points. Its consistence was firm and its texture homogeneous, of greenish colour, and filled with a number of small cavities containing serous fluid. The cavity in the cerebral matter in which the tumour lay was irregular, and its parietes were softened. The abdominal and thoracic viscera were sound.

Had dependence been placed on the relative's account, or severe measures used to extract the foreign body affirmed to reside in the ear, and believed to produce the existing ill, what a blunder the surgeon would have made, what a risk the patient would have run! The case should teach us caution, especially when extraneous substances are merely said to be present in any of the outlets or inlets of the body, without tangible or other positive proof of the fact. The attempt to dislodge such imaginary obstructions not

seldom excites unpleasant symptoms, and might readily give a fatal fill up to any that actually existed.

III. EXCESSIVE PROLONGATIONS OF THE MUCOUS MEMBRANE OF THE UPPER LIP.

A young soldier in garrison at Paris presented himself in the Hôtel Dieu on the 20th April, with a great prolongation of the mucous membrane of the upper lip, which almost entirely covered the teeth on each side when the patient attempted to speak or laugh. The double kind of pouch produced by this protrusion of the mucous membrane impeding the motions of the lip, independently of the disagreeable deformity it occasioned, the gallant soldier was very desirous of an operation for its removal. M. Dupuytren having directed an assistant to hold the upper lip on one side, seized it himself on the other, and nipped off the projecting mucous membrane with a pair of scissors, curved like those for excision of the tonsil on their flat side. A brisk hæmorrhage ensued, but was soon arrested; suppuration of the wound ensued, and at the end of eight days the patient was cured.

The reporter remarks, that the seat of this disease is in the sub-mucous cellular tissue, which is hypertrophied and more or less infiltrated with serum. The mucous glands of the lip, continually irritated by the suction, motions, and pinchings which the prolongation of the mucous membrane undergoes, are generally much enlarged also. In some individuals the permanent irritation induces chronic inflammation, which may even end in cancerous degeneration. In one case, M. Dupuytren was obliged to remove a great portion of the posterior part of the lip, which had become cancerous under these circumstances.

IV. REMARKS ON HERNIE OF THE MUSCLES.

Be not alarmed, gentle student, we are not about to have another Ossa on the Feliions and Olympus' that already inter-

vene between you and your diploma. We are not to add another to the thousand and one varieties of hernia in and about that region so sacred to the divinities of surgery, the region of the groin. What we mean to describe is of quite another character.

After accidental openings, says M. Dupuytren, made in the fasciæ by surgical operations, wounds not surgical, or violent efforts, it frequently happens that the muscles during their contraction pass through the apertures, and form true hernial protrusions.—They are sometimes very painful, and prevent the patients from using their limbs, and especially from walking, unless they are treated by appropriate bandaging. Occasionally, the tumours thus formed give rise to strange errors in diagnosis, and consequent mischief in practice. A young man, for instance, the son of one of the members of the conseil général des hôpitaux, fatigued himself greatly in mounting a horse *à l'Anglaise*, whose manner of riding is well known to exercise greatly the muscles of the calf. A tumour supervened on the inner and posterior part of the leg, which was extremely painful on walking, or even standing still. When the patient lay down, the tumour disappeared and the pain subsided. Several practitioners were consulted on the case, some of whom thought it was a varix, others an enlargement of the nerves, but M. Dupuytren detected a protrusion of the muscles, such as has been mentioned above, and applied a bandage with complete success.

witnessed a terrible specimen of ignorance and neglect, in the person of a female child, whose face was covered with porrigo favosa to a frightful degree. The medical practitioner had christened it *scrofula*, and, under the cover of that bugbear, deceived the parents and screened himself. Really, is it not shocking that the health and the happiness of patients should be at the mercy of impudent ignorance like this, and that men should be hardy enough to go abroad and prey, without dread of molestation from the law, on the persons and pockets of unhappy, unsuspecting victims? So however, it is, and medical men in general have been far too agreeably occupied in the perusal of ribald lies and profitable slander, to attend to the dull, dry lesson of professional information. The present report opens with the case of a patient, of delicate habit, affected with a papular eruption having all the characters of *lichen agrius*, principally situated in the lower extremities. The papulæ were approximated, confluent, ulcerated at their apex, furnished a pretty abundant exudation, and were accompanied at times with violent itching. The disease had first appeared in childhood, and had disappeared and returned several times. Shortly before the present attack it had yielded rapidly to emollients, but the patient being a public-house-keeper, and probably, like Dennis Bulgrudery, one of his own best customers, the cure was by no means of a permanent character.

LIV.

HOPITAL ST. LOUIS.*

I. LICHEN AGRIUS.

SCARCE a day elapses without convincing us of the importance of studying the diseases of the skin, as well as of the very different manner in which they are understood in general. Not a week ago we wit-

M. Bielt remarked, that lichenoid affections are amongst the most severe and obstinate of the eruptions, on account of the generally deep alteration of the skin, and disturbance of the internal functions. M. Bielt does not consider *lichen agrius* as a very distinct species of the lichen family, since it arises from the inflammation of another form. In fact, the papulæ first inflame, their apices then become elevated, and an exudation, more or less considerable, is established, which dries and furnishes scales, which themselves fall off and alternate with a fresh exudation. *Lichen agrius* is always accompanied with severe local symptoms; the patients are

* Journ. Hebdomad. No. 39, 44.

tormented with a burning heat, and the itching is almost insupportable, especially in the night, or after eating certain kinds of stimulating food, or sometimes even Seltzer water. The want of sleep thus produced is frequently very distressing.

Lichen agrius attacks all ages, appears at all seasons, but is more severe during the Winter, and appears to be aggravated by artificial warmth. It attacks indifferently either sex, but is met with most frequently in persons with rough, sallow skins, and bilious temperament, although those with fair complexions are not exempt from its visitations. Like most of the eruptive diseases, it is particularly met with in the lower classes immersed in filth and misery, and addicted to unwholesome food and drink. The eruption most likely to be confounded with lichen agrius, is the *eczema chronicum*, but the former is always characterised by papule, either simple or ulcerated; besides which, the skin is dry and so thickened that it is impossible to pinch it up into a fold. The surface in *lichen agrius*, is so dry that it frequently shews not the least moisture in the vapour bath, when the neighbouring parts are in a state of perspiration. The slightest examination is sufficient to distinguish this disease from any of the other eruptive affections, especially from psoriasis.

So much for the characters and diagnostic marks of lichen agrius; the following are the medicinal instructions afforded by M. Bielt. As there is commonly some chronic irritation of the primæ viæ, demulcent draughts, quiet, and a light regimen, should be combined with some plain warm baths. The more active baths should be avoided till resolution is taking place, when certain quantities of the subcarbonate of potass, or even the hydro-chlorates of soda and potassa may be added with advantage. If employed too early, the medicated baths, not excepting the sulphureous, only aggravate the symptoms.

II. LICHEN GYRATUS, AND LICHEN CIRCUMSCRIPTUS.

In the first form, *lichen gyratus*, which is very rare, and first described by M. Bielt,

the patches of lichen are disposed in spiral forms, like riband, contorted on themselves. Nothing more is said about it. The *lichen circumscriptus* has been confounded with *herpes circinnatus*, but in lichen it is papule which succeed each other, and they are full and red, especially when much itching prevails. In *herpes circinnatus*, on the contrary, we find not papule, but vesicles in all its stages, and often when the circle of herpes is large the centre returns to its natural state, which is never the case in lichen. This circumscribed form is much less severe than lichen agrius, and neither have any defined duration, whilst lichen simplex seldom lasts more than two or three weeks, though apt to recur several times.

III. HERPES.

M. Bielt and M. Alibert, both men of "consular dignity," and colleagues in the Hôpital St. Louis, would seem like many of their confrères on this side of the water to be at open war. The former is an admirer of the English School, a cautious and able disciple of Willan and Bateman; the latter is, like the Irishman, a follower of no one but himself. M. Alibert accuses M. Bielt of Anglo-mania—the world accuse M. Alibert of something worse, a spice of quackery! For our own parts, being islanders and fully impressed with the excellence of our own school, we reject M. Alibert and cleave to M. Bielt, or rather to his doctrines. Herpes in the French, i. e. the *Alibertin* code, corresponds with *dartre*, and to the latter term M. Bielt takes strong and just grounds of exception. As the word, however, is not prevalent amongst us we are under no necessity for proving it a bad one, and therefore pass on to more practical matters.

The word *herpes* is universally admitted to signify a vesicular eruption, of which there are many varieties. *Herpes phlyctenodes* is characterised by isolated clusters, separated from each other by intervals of sound skin. The first symptom is smarting, then small red spots make their appearance, which approach each other, raise the epidermis, contain a light coloured serum,

and assume the vesicular character. At the expiration of five or six days the vesicles open, the liquid escapes after having acquired a slight opalescence, and nothing more than redness covered by superficial scales remains behind. This affection might be confounded with *pompholyx* when the bullæ are of small extent, and especially with *pompholyx pruriginosus*. But however small the bullæ may be in *pompholyx*, they are still sound, whilst in herpes phlyctænodes if the vesicles are large they are also irregular and angular. The bullæ of acute *pemphigus* differ too widely from herpes, to allow of a mistake between them being made. In *eczema* the vesicles are rarely disposed in groups as in herpes phlyctænodes, but even when they are so, as in two cases seen by M. Biett, the vesicles are much smaller, less prominent, and the redness more intense than in the latter affection. The duration of herpes phlyctænodes may exceed two or three weeks, but it varies greatly; the redness remains for several months.

ular bullæ, a circumstance which by no means justifies the placing the disease amongst the latter order. Sometimes the vesicles become purulent, break, and form genuine ulcers, which happens especially in elderly men with weakened constitutions. The ulceration may almost be predicted by the violet tint of the eruption and the translation of the vesicles into the purulent state. The ulcers continue open for two or three weeks. Herpes zoster is always recognizable, whatever region it attacks, by the disposition of its clusters; its causes are extremely obscure. Most commonly it is to be considered as a trifling affection, and the prognosis framed accordingly. The treatment consists in the employment of diluents, (délayers,) gentle laxatives, and baths. When its irruption is attended with much local heat, camphorated ointment is a good application. The employment of caustics lately recommended by M. Bretonneau and others on the Continent is occasionally applicable to the very early stage of the complaint, and they (the caustics) should be mild ones.

Herpes Zoster is by no means, as has been stated, peculiar to the trunk, but may occupy the thigh, the haunch, the toes, the forehead, the hairy scalp, the neck, the cheeks, even the mucous membrane of the mouth. Its direction too may be oblique or horizontal, as it extends upwards from the middle of the trunk, or downwards to the lower extremities. The term *zoster* is not therefore strictly correct. It has reigned almost epidemically during the present year, and a great number of cases have been received in the Saint Louis. Until the present year M. Biett had almost always remarked it on the right side of the body, but during the epidemic the left side has been almost exclusively affected, a curious occurrence enough. The foregoing doctrines or observations will be considered, in many respects, heterodox in this country, but facts are stubborn things. The symptoms are nearly the same as those of herpes phlyctænodes, the vesicles becoming opalescent on the 5th or 6th day, approaching each other but not in general coalescing. In some rare cases they mix and form irreg-

Herpes circinnatus, frequently confounded with the porrigo scutulata, or ring-worm, is characterised by circles bordered by vesicular surfaces successively developing themselves, one beyond the other, whilst the centre is generally sound. M. Biett attended a lady last year, who was first affected with a single circle of herpes circinnatus on the thumb; in the course of a week or two the eruption had extended to the fore-arm but still preserved its circular character. The disease may last for months, and leaves behind it marks which are evident long after itself has disappeared. The circular form and vesicular nature of herpes circinnatus are sufficient to distinguish it from lichen circumscripatus, the only affection with which it is liable to be confounded. The treatment consists in the exhibition of acidulated drinks, simple and vapour baths. If the disease is rather severe, local bleeding by leeches, &c. beyond the inflamed circle, or even in the centre when extensive, may be practised with advantage.

Herpes iris, characterised by the presence of two or even three vesicular circles inclosed within each other, is so rare that M. Bielt has only witnessed two cases, notwithstanding his extensive field for observation.

Herpes labialis, as every body knows, is commonly critical of a catarrh, or a fever, or indeed any illness, and is of no sort of consequence, except to young ladies and very particular gentlemen. It quickly disappears.

Herpes præputialis is distinguished by vesicular groups most frequently situated on the external skin of the prepuce, sometimes on its internal surface, or even on the glans. It is attended by a considerable secretion from the follicular glandules of an unctuous fluid. The vesicles break, are detached in small rolled membranes, and leave behind the cutis vera denuded and ulcerated. M. Bielt remarks, as has indeed been frequently remarked before, that herpes præputialis is constantly mistaken by ignorant practitioners for syphilitic sores, with the most unfortunate consequences, of course, to the patient. Attention to the appearances and history will enable a well informed man to distinguish them without much difficulty. Herpes præputialis often assumes a chronic character, especially when stimulating or caustic applications have been used ; it then becomes extremely intractable, lasting for months, or even several years, and is accompanied with phymosis. The abuse of venereal pleasures is a frequent cause of the disease, and so is the leucorrhœal discharge. One of the greatest difficulties encountered in the treatment of chronic herpes is the concealment of the glans, to obviate which M. Bielt dilates the præputial orifice by means of sponge tent. Surely, however, the operation for phymosis must be preferable to so painful and tedious a measure as dilatation, at least if the case is at all severe. The remainder of the treatment consists in the employment of soothing applications, alkaline baths, and sometimes gentle stimulating lotions of the sulphate of alum, zinc, or copper.

IV. ECZEMA.

Many specimens of this vesicular disease

being found in the hospital, have furnished *fulcra* on which M. Bielt has rested some clinical remarks. In the beds, No. 6, and 17, lay two patients affected with chronic eczema. The first was a cutler at the decline of life, and of feeble constitution, in which the disease had been severe from its commencement, had resisted every measure had recourse to, or if checked for a time had always re-appeared. M. Bielt remarked that eczema is always most severe in old people, and in weakly constitutions, since evacuations of blood are productive of mischief in such cases. The present patient is treated by preparations of sulphur internally and externally also in the form of baths. The second case was that of a shoemaker, in whom the eczema commenced four years previously with extreme severity, but yielded notwithstanding to a very stimulating treatment, namely, bitters, "*vin antiscorbutique*," &c. The return of the disease was clearly referrible to the salt provisions on which the patient lived.

In another case eczema occupied the hairy scalp, a situation in which it is very obstinate, and not unfrequently confounded with porrigo. By recollecting the vesicular nature of eczema we can always distinguish the diseases. Even when the primary state of the eruption is obscured by scales, the latter will readily fall off under the application of poultices, and the vesicles be reproduced. This patient is taking arsenical preparations with much advantage.

In a fourth case, a crop of papulæ appeared upon the surface occupied with the vesicles of eczema, a circumstance that might be mistaken for the conversion of the papulæ into the vesicular disease or *vice versa*. Another example of a complication of eruptions was presented in the person of a man in whom *eczema rubrum* was combined with roseola, both of which pursued their regular course. The exanthema occupied almost the whole of the integument, whilst the eczema was confined to the nipple, a spot in which it is extremely obstinate. Such coincidences as these are believed by M. Bielt to have deceived Willan, who

mentions *lichen agrius* as passing into *impetigo*, &c.

V. PSORIASIS.

In a case of psoriasis diffusa, where arsenical preparations failed in toto, those of sulphur were attended with remarkably good effects. M. Bielt considers this as a curious fact, since they commonly are not so fortunate, especially in chronic cases which have not succumbed to energetic treatment.

VI. ELEPHANTIASIS ARABUM.

In the bed, No. 11, was a carrier, 70 years of age, who had suffered from this disease in the left leg and foot, for forty years. These parts were double their natural volume, hard, and much deformed; the tumefaction ceased abruptly at the junction of the middle with the upper third of the leg. The disease had commenced with repeated attacks of erysipelatous inflammation, which succeeded each other without interruption for several years, and ended in deep induration of the cellular tissue, and a scaly, indeed almost thorny thickening of the epidermis. This disease, the elephantiasis Arabum, generally attacks the lower extremities, though in India it has been seen to occupy the scrotum. It begins by erysipelatous inflammations which succeed each other at longer or shorter intervals and the lymphatic vessels are ordinarily implicated, and form a kind of cord extending up to the glands of the groin. The erysipelatous attacks are accompanied by symptoms of general fever, symptomatic, in M. Bielt's opinion, of the local disease. The inflammatory action attacks the cellular tissue and lymph is thrown out, especially on the dorsal surface of the foot, producing enormous increase of volume and burying the nails, which almost disappear. Sometimes tubercles supervene, at others a vesicular eruption, or a considerable and horny thickening of the integuments.

If the disease is recent we may hope to subdue it; if not, the prospect is a very bad one. The therapeutic measures which M. Bielt has most frequently found to succeed, have been bloodletting, if the patient is robust—light revulsives—rather

stimulating *douches*, either sulphurous, alkaline, or vapour—but more than all, compression, from which he has obtained unexpected success.

We must here conclude this report, which we have been at some pains to condense from the originals. If it serve to convey information on the diseases of the skin to any of our readers, we shall deem our labour amply repaid.

EV.

MAISON ROYALE DE SANTÉ.

POLYPUS OF THE UTERUS AND PREGNANCY.*

The above combination is singled out as the subject of an interesting report by—a lady, MADAME BOIVIN. Ah, Sir Anthony Carlisle, how would your heart leap with joy, could you see such obstetric *blues* in merry England, or preside over a college of literary midwives *not* men! How would decency be screened if the *harem* of generation and foetation were forbidden ground to all who are not arrayed in petticoats, and the mysteries of midwifery only to be descanted on by females! Seriously, however, there appears to be something repulsive in the idea of women writing on such subjects as impregnation, or relating dissections with perfect sang froid, something which would seem to sin against decency and feeling. But after all, men's sentiments on these points are conventional rather than established on any certain principle, and what passes for modesty and decorum here, is looked on with dismay by the *faithful* or the prudens of Constantinople. If our Gallic neighbours tolerate and encourage female practitioners and writers in midwifery, surely we have no business to complain. We remember reading of a cardinal, who, when the pious sisters of a certain nunnery complained that they were scandalized by the posterior view of a

* Journ. Hebdom. No. 44.

naked marble god, erected in his holiness's garden, recommended them to look another way! If any of our pious brethren are shocked at French ladies publishing on pregnancy, we would simply repeat the cardinal's advice, but for our own parts we shall make use of the information they afford.

The combination of polypus uteri with pregnancy is not uncommon, and we lately adverted to one or two cases in a review of a paper of Dr. Macfarlane's on the subject of polypus. Madame Boivin has related three cases, the first of them fatal, which are short and deserving of attention.

Case 1. Mademoiselle Anne Lem. æt. 22, a sempstress of the rue St. Honoré, was brought to the Maison de Santé, on the 16th of August, 1822, fifteen hours after delivery at the full time, of a living child, her third. The infant was removed five hours afterwards to be deposited at the Foundling Hospital, when the mother who had been previously doing well, fell into convulsions and delirium. On admission her state was hopeless, and thirty hours after her accouchement she died.

Sectio Cadaveris. There was purulent matter on the surface of the cerebellum, and the liver was tuberculated, but passing over other matters briefly, let us look to the condition of the uterus. The neck of the organ which was quite collapsed was occupied by a polypus, three inches in length by two and a half in breadth, attached by a broad pedicle to the posterior part of the internal orifice of the uterus. The tumour was covered half way up by a thin whitish membrane, continuous with that which still lined a part of the uterine cavity. The placenta attached to the posterior wall of the uterus, had also an attachment to the superior and anterior portion of the polypus. The structure of the latter was pulpy, reddish, and like the fetal brain, but more consistent.

As Madame Boivin remarks, it is evident from the placental attachment to the polypus, that its origin was nearly coincident with, if not antecedent to, pregnancy. Notwithstanding this the patient

went her full time and was delivered of a living child.

Case 2. Madame P. R. —, wife of a linen-draper at Louviers, consulted Mad. Boivin for bloody discharge from the vagina, to which she had been subject for many years. She had met with five or six successive abortions, and her first and only living child, was rickety. On examination, a polypus about the size of a plum was felt at the cervix uteri, which had descended very low; its substance was soft, and the finger could be passed along the pedicle into the uterine cavity. Notwithstanding Madame Boivin's urgent recommendations to the patient to submit to an operation, she refused until another year and an eighth abortion in the third month had occurred, with increase of the bloody discharge. Then and not till then, she allowed M. Dupuytren to apply the ligature, a tuberculated state of the cervix uteri ensued, and in the course of two years more the patient died.

Case 3. In April, 1820, a lady residing at Saint Germain-en-Laye, applied to Mad. Boivin on account of an amenorrhœa, which had lasted since her third and last accouchement, seven years previously. The labour, from her husband's account, had been natural, and delivery prompt. When the accoucheur was leaving the room, the patient complained of weakness and of something large escaping from the parts, which proved to be a polypus, as large as the fist. The accoucheur applied no ligature, but tore the tumour from its attachment to the uterus, by twisting the pedicle, an operation attended by violent pain at the time, and followed by inflammation of the parts, which kept the patient in her bed for several months. The menses never afterwards appeared, but were replaced by a nearly constant flow of white fluid, which reduced the patient to a great degree.

At the time of her application, the expression was that of extreme exhaustion, there was constant lassitude and dragging at the stomach, and the patient complained of a perfect indifference

to conjugal intercourse; in fact she said that since her last accouchement she seemed to have lost her sex. On examination per vaginam, nothing particular was noticed, except that the cervix seemed low, and its orifice very open; the uterus appeared to have preserved its natural volume.

Madame Boivin asks very reasonably, if the suppression of the catamenia in this female, only 27 years of age, is to be referred to the inflammation of the uterus, ending in adhesion of its sides? She also adverts before closing the report to the following curious facts; the daughter of the last patient has distortion of the spine, the son of the second was rickety, and another lady of Madame Boivin's acquaintance, who had been operated on for polypus uteri three months after confinement, has also given birth to a deformed daughter. The coincidences are curious.

LVI.

LITHONTRITY.

Much attention has been excited lately by the consideration of the means by which calculi are broken in the bladder. This new operation, which many surgeons have laboured to improve with more or less success, appears to us of sufficient importance to make some account of it interesting to our readers. Having examined Baron Heurteloup's instruments, we gladly avail ourselves of the following general description of them forwarded to us by Mr. Rutherford Alcock. The character of that gentleman is sufficient guarantee for its accuracy.

"Prior to M. Heurteloup's improvements, the instrument by which the calculi were broken up, consisted of a tube, inclosing three branches, which on being forced out, opened by their own elasticity, and closed upon the stone by the act of drawing them in the tube. Within this tube also was a stylet with a drill at the end, which was made to perforate the stone by a rotatory motion communicated to it by a bow.—

Whilst the perforation of the stone was thus effected, the instrument was held in a kind of hand-vice which during the operation was confided to the hand of an assistant.

M. Heurteloup observing that this instrument only made one hole in the stone each time it was seized, concluded that this instrument was sufficient for small stones, the formation of one hole, enabling it to be broken up at once, but that it became insufficient in proportion as the stone increased in size—for the larger the calculus the more frequently it requires to be taken up in the bladder, in order to be broken up by successive perforations.

M. Heurteloup while he rendered full justice to this instrument by using it in cases of small stones, conceived and had constructed several instruments to fulfil the following indications which were not effected by the labours of those surgeons who had preceded him.

1st. *To seize a round or oval stone in the bladder one inch in diameter, and scooping it out, break it up at once.*

This indication was fulfilled by that which he calls the three branch instrument with the mandrin a virgule.*

In this instrument he retained the mechanism of the original three-branch instrument, and which was sufficient to take stones of this size, and re-placed the drill, which only made one hole of 3 lines and $\frac{1}{2}$ in diameter with another, which by a single rotation made a cavity 10 lines in diameter. In this manner the centre of a stone one inch in diameter, was immediately reduced to powder—and the remainder to a shell or excavated fragments.

2do. *To seize a stone of from 12 to 18 lines in diameter—excavate and break it at one sitting.* This he effected by a very ingenious apparatus which he calls "*evidoir avec pince a forceps*."

* M. Heurteloup terms this head with the stem which supports it—"mandrin a virgule" because the small steel blade which is pushed out of the drill to make the excavation, is in the form of a virgule or comma (,)—R. A.

In this instrument the forceps destined to seize the stone is differently constructed to that previously mentioned containing three branches. It consists of four branches moveable separately or together, so that to grasp the stone, the surgeon takes it in a similar manner to the accoucher when he employs the forceps. He only extends the last branch when the other three already retain it. The size of the calculus and its situation below the neck of the bladder, when it is of this size, have rendered this combination essentially necessary. This instrument has to assist it in seizing the stone, another small pair of forceps which are very fine, the "*pince servante*," and which being introduced within the large forceps, is destined to place the body in the most favourable position for its destruction. The part of this instrument, destined to break it is composed of a perforator and evideur. The surgeon may obtain by means of this instrument the excavation of a stone of 18 lines until its sides break down, and the fragments fall in excavated pieces.

The third indication M. Heurteloup wished to fulfil was—"when the stones are reduced to shells or concave fragments, or when they are originally flat, to find the promptest and most effectual means of reducing them in sufficiently small morsels, and allow of their expulsion by the urine."

To solve this problem, M. Heurteloup invented the instrument he calls a "*brise coque*."* Though it was possible to break the fragments with the three-branch instrument we first mentioned, he observed that its action was very slow, and that it had but little power over flat stones; he therefore saw the necessity of giving up the system of perforations to arrive at the desired result, and he substituted the action of two strong branches passing through a tube, and rubbed against each other by a mechanical apparatus, with the ends sufficiently large

and powerful to crush and grind the body grasped by it; such is the effect of M. Heurteloup's *brise coque*. Its application is easy for the surgeon and unattended by pain to the patient. It is evident, on seeing the *brise coque*, that this instrument is capable of quickly destroying the calculi, and by no means liable to injure the bladder.

4th. *To place the patient and surgeon in the most favourable position for the action of the instruments, whichever they may be.*

The patient lying on a common bed during the search for the stone, and the instrument confided to the hand of an assistant, while he submitted to the action of the instruments, did not appear to M. Heurteloup to offer all the chances of success to the operator which he might easily command: he, therefore, invented a little bed, by which the patient was conveniently situated both as respected his position and the perfect facility with which the surgeon could act, and during the operation the instrument could be fixed, and constantly retained in the same place, making the chances of success much more numerous.

By this "*lit rectangle*" then, as M. H. calls it, the surgeon is unconfined in his movements, and the instrument which grasps the stone is held steadily by a moveable vice fixing on to the frame, during the action of the drill, evideur, &c.

M. Heurteloup always employs this vice when he attacks calculi with his evideur—when he has only a small stone to destroy, and the three-branch instrument is sufficient, he employs it sometimes fixed, sometimes moveable."

Such is the able and interesting account of Baron Heurteloup's instruments, for which we are indebted to Mr. R. Alcock.—We beg distinctly to state, that in thus taking notice of the Baron's instrument's for lithontrity, we would not be thought for an instant to enter into any controversy between him and other gentlemen, nor to pronounce an opinion on their superiority or otherwise.

* It was for this instrument more particularly that M. Heurteloup received the prize of five thousand francs from the Institute of France.—R. A.

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TO CORRESPONDENTS.

We are glad to perceive by the CARLISLE JOURNAL, for the 29th of August last, that a most respectable meeting has been held in the Town Hall of Carlisle, for the purpose of considering the best means of establishing a public Infirmary for the County. The Right Honourable the Earl of Lonsdale was in the chair, and the other persons of distinction took an active interest in the measure. The following resolutions were agreed to;—1mo. That it is the opinion of this meeting that a Public Infirmary should be established in this County. 2do. That the sum of £4489 having been *already* subscribed for the erection of an Infirmary, a Committee be appointed to ascertain what further sums can be obtained for the purpose, and the probable amount of annual subscriptions to be calculated upon. 3tio. That should the funds prove adequate for the proposed undertaking, the Committee be empowered to make the necessary arrangements about site, &c.

We wish the measure every success which it deserves and no doubt will obtain under the auspices of the noble and charitable persons who have taken it in hand. One word to the medical officers;—if the Infirmary is established, remember that it should not be a close borough, but its professional advantages should be made available as widely as possible to the medical circle around.

Many thanks to Mr. Bury. He will find the case in the first Fasculus of the next Number.

If the Gentleman residing in Devizes (but whose name has escaped the Editor's memory) will commission a friend to call at his house, mentioning the number of the old series which the gentleman was desirous to obtain, a copy of it will be delivered to him, one having been lately procured.

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